PATENT
Customer No. 22,852
Attorney Docket No. 05725.0384-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Christine RONDEAU	Group Art Unit: 1751
Application No.: 10/761,213	Examiner: Margaret V. Einsmann
Filed: January 22, 2004	
For: DYE COMPOSITION FOR KERATIN FIBERS, WITH A CATIONIC DIRECT DYE AND A SUBSTANTIVE POLYMER	Confirmation No.: 2722

Attention: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDED APPEAL BRIEF UNDER BOARD RULE § 41.37

In support of the Notice of Appeal filed June 21, 2005, and the Appeal Brief timely filed on December 20, 2005, including a check for the fee of $500.00 required under 37 C.F.R. § 1.17(c), Applicant files an Amended Appeal Brief in response to the Notification of Non-Compliant Appeal Brief mailed on February 13, 2006, concurrently with a Response to the Notification of Non-Compliant Appeal Brief.

This Amended Appeal Brief is timely filed on March 13, 2006, thirty days or one-month from the mail date of the Notification of Non-Compliant Appeal Brief dated February 13, 2006.

This Appeal responds to the December 21, 2004, final rejection of claims 1-42.

If any additional fees are required or if the enclosed payment is insufficient, Appellant requests that the required fees be charged to Deposit Account No. 06-0916.

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Real Party In Interest

L'Oréal, S.A. is the real party in interest. The assignment is recorded at Reel No. 10063 and Frame No. 0262 on June 20, 1999.

Related Appeals and Interferences

There are currently no other appeals or interferences, of which Appellant, Appellant's legal representative, or Assignee are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Appellant, however, would like to bring to the Board's attention the Decision by the Board in the parent application to this application, which is identified *infra* in the Related Proceeding Appendix.

Status Of Claims

Claims 1-42 stand rejected and are being appealed. A complete listing of the pending claims is included in the attached appendix. No claims have been allowed.

Status Of Amendments

No claim amendments have been made in response to or subsequent to the final Office Action dated December 21, 2004.

Summary Of Claimed Subject Matter

The present invention relates to a dye composition for keratin fibers, comprising at least one specific cationic direct dye and at least one specific cationic or amphoteric substantive polymer. Appellant's Specification at 3, ll. 9-13. Cationic direct dyes are known in the art, but may present certain disadvantages, such as providing insufficient coloration, both in the homogeneity of the color along the length of the fiber, and in the staying power of the coloration in the face of "attacking" factors such as light, bad weather, and shampooing. *Id.* at 2, ll. 9-14.

After considerable research, the inventor has discovered that when certain specific cationic direct dye(s) are combined with certain specific cationic or amphoteric substantive polymer(s), the result is a novel composition that give less selective (i.e., more homogeneous) coloration and that provides colorations that show good resistance to the various attacking factors. *Id.* at 2, ll. 15-20.

More specifically, the novel compositions of the invention contain at least one cationic direct dye chosen from those of formulae (I), (II), (III), and (III'), as described in the specification and claims. *Id.* at 3, line 14-12, line 4; *see also*, independent claims 1, 37, 38, 39, and 40. The compositions also contain at least one specific cationic or amphoteric substantive polymer. *Id.* at 34, line 1-35, line 7; *see also*, independent claims 1, 37, 38, 39, and 40. These components form the basis of the novel composition.

In addition, the present invention is directed to methods for dyeing keratin fibers using the dye compositions as defined above. *Id.* at 44, line 10-45, line 18; *see also*,

independent claim 37, 38, 39, and 40. For example, at least one dye composition as defined above may be applied to the keratin fibers, for a period of time sufficient to develop the desired coloration, after which the fibers are rinsed, optionally washed with shampoo, rinsed again and dried. *Id.* at 44, ll. 12-15.

According to one specific embodiment of this dyeing process, the dye composition in accordance with the invention may contain at least one oxidation base and at least one oxidizing agent and the dyeing process may comprise separately storing, on the one hand, a composition (A1) comprising, in a medium suitable for dyeing, at least one cationic direct dye (i) as defined above and at least one oxidation base, and, on the other hand, a composition (B1) containing, in a medium suitable for dyeing, at least one oxidizing agent, then mixing them together at the time of use, before applying this mixture to the keratin fibers, the composition (A1) or the composition (B1) containing the cationic or amphoteric substantive polymer (ii) as defined. *Id.* at 44, line 21-45, line 9; *see* independent claim 37.

According to another specific embodiment of this dyeing process, the dye composition may contain at least one oxidizing agent, and the dyeing process may comprise separately storing, on the one hand, a composition (A2) comprising, in a medium suitable for dyeing, at least one cationic direct dye (i) as defined above, and, on the other hand, a composition (B2) containing, in a medium suitable for dyeing, at least one oxidizing agent, then mixing them together at the time of use, before applying this mixture to the keratin fibers, the composition (A2) or the composition (B2) containing the

cationic or amphoteric substantive polymer as defined above. *Id.* at 45, ll. 10-18; *see* independent claim 38.

Another subject of the invention is a multi-compartment dyeing device or "kit" or any other multi-compartment packaging system, a first compartment of which contains composition (A1) or (A2) as defined above and a second compartment which contains composition (B1) or (B2) as defined above. *Id.* at 45, line 19-46, line 3; *see* independent claims 39 and 40.

Grounds of Rejection to be Reviewed on Appeal

A. Claims 1-42 stand rejected under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 5,735,908 to Cotteret ("Cotteret") in view of WO 95/01772 to Möckli ("Möckli").

B. Claims 1-23, 32-36, and 41-42 stand rejected under 35 U.S.C. § 103 as unpatentable over DE 29512302 to Kao Corp. ("Kao") in view of Möckli.

Argument

Claims 1-42 are patentable over Cotteret in view of Möckli and Kao Corp. in view of Möckli.

1. The criteria for making a prima facie case of obviousness are clearly set forth in the M.P.E.P. and in case law.

To establish a *prima facie* case of obviousness, three criteria must be met: (1) there must be some suggestion or motivation to combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all the claim limitations. M.P.E.P. § 2143 (8th ed., Rev. 2, 2004). With regard to the suggestion or motivation to combine the reference teachings, the Federal Circuit has stated on numerous occasions that inventions are typically new combinations of existing principles or features. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998).

For example, in *Rouffet*, the Federal Circuit explained that an examiner may find every element of the claimed invention in the prior art, but mere identification of each element in the prior art is not enough to negate patentability. *Id.* at 1357, 47 U.S.P.Q.2d at 1357. Instead, "the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner as claimed." *Id.*, 47 U.S.P.Q.2d at 1458. These reasons to be provided by the Office would satisfy the requirement of showing a suggestion or motivation to combine the reference teachings.

Furthermore, the Office's basis for the determination of obviousness cannot be what the skilled person might try or find obvious to try. *See In re O'Farrell*, 853 F.2d 894, 7 U.S.P.Q.2d 1673 (Fed. Cir. 1988). Specifically, the Federal Circuit has identified some situations that exemplify an "obvious to try" rationale. *Id.* For example, an "obvious to try" rationale can be found where one "var[ies] all parameters or tr[ies] each of numerous possible choices until one possibly arrived at a successful result, [because] the prior art gave either no indication of which parameters where critical or no direction as to which of many possible choices is likely to be successful." *Id.* at 903, 7 U.S.P.Q.2d 1681 (citation omitted). Additionally, "what was 'obvious to try' was to explore a general approach that seemed to be a promising field of experimentation, where the prior art gave only guidance as to the particular form of the claimed invention." *Id.* Thus, prior art proposing a general approach or identifying numerous possible choices does not establish a *prima facie* case of obviousness.

If an applicant submits comparative testing to rebut a *prima facie* case of obviousness, then the comparative testing "'must be sufficient to permit a conclusion respecting the relative effectiveness of applicant's claimed compounds and the compounds of the closest prior art,' and must 'provide an adequate basis to support a legal conclusion of unobviousness.'" *In re Geiger*, 815 F.2d 686, 689, 2 U.S.P.Q.2d 1276, 1279 (Fed. Cir. 1987) (Newman, J., concurring). Applicant, however, is not required to compare the claimed invention with subject matter that does not exist in the prior art. *Id.*, 2 U.S.P.Q.2d at 1279. Moreover, "the applicant is not required to create

prior art, nor prove that his invention would have been obvious if the prior art were different than it actually was." *Id.*, 2 U.S.P.Q. at 1279.

According to the Court of Customs and Patent Appeals in *In re Chapman*, requiring an applicant to compare the claimed invention with a polymer suggested by the combination of references relied upon in the rejection under 35 U.S.C. § 103 "would amount to requiring comparison of the results of the invention with the results of the invention." 357 F.2d 418, 422, 148 U.S.P.Q. 711, 714 (C.C.P.A. 1966). This is not required for comparative testing. *Id.*, 148 U.S.P.Q. at 714.

2. Examiner's position.

In the Office Actions dated May 26, 2004, and December 21, 2004, the Office states that Cotteret teaches using cationic or amphoteric substantive polymers with 1-hydroxyalkyl or 1-hydroxyalkoxy-2,5-diaminobenzene, i.e., oxidation bases. Office Action dated May 26, 2004, at page 2; Office Action dated December 21, 2004, at page 2. According to the Office, Cotteret's composition may also include other dye components such as couplers and/or direct dyes. *Id.* It is Cotteret's optional inclusion of direct dyes that the Office uses to link Cotteret with Möckli. In particular, the Office identifies in Möckli direct dyes which overlap with those presently claimed. *Id.* Accordingly, the Office relies on Cotteret's disclosure of the optional use of direct dyes in oxidation dye compositions and Möckli's disclosure of specific direct dyes in direct dye compositions to suggest a motivation for the combination of these references. Specifically, the Office states that "Möckli teach[es] that said dyes are compatible with the cationic polymers, for example the polyquaternium polymers, that Cotteret uses, and

Cotteret teaches that the claimed polymers result in various improved properties such as improved selectivity used in oxidation dyeing compositions." *Id.* at 3; Office Action dated December 21, 2004. Under this rationale, the Office rejects claims 1-42 under Section 103 as obvious over Cotteret in view of Möckli.

Using a similar rationale, the Office rejects claims 1-23, 32-36, and 41-42 under Section 103 as obvious over the combination of Kao in view of Möckli. According to the Office, Kao teaches "compositions for dyeing or toning human hair which comprise a direct dye and a hydroxylalkyl guar gum or a quaternary salt thereof." Office Action dated May 26, 2004, at page 4; Office Action dated December 21, 2004, at page 4. The Office, however, admits that "Kao does not teach cationic direct dyes of the claimed formulae," but the broad teaching of direct dyes allows for the importation of other more specific direct dyes such as those taught by Möckli. *Id.* As such, the Office relies on Möckli for the disclosure of the presently claimed at least one cationic dye. *Id.* The Office concludes that it would have been obvious to one of ordinary skill in the art to substitute Möckli's dyes for those of Kao's because Möckli's hair dyes are used for the same purpose as Kao's and Möckli's dyes improve the color strength and fastness properties as compared with Kao. *Id.* at page 5.

Thus, in both obviousness rejections of record, one reference discloses the particular cationic or amphoteric substantive polymers recited in the claimed invention with a generic disclosure to either a generic direct dye or the optional inclusion of a direct dye and the second reference teaches the particular direct dyes recited in the claimed invention. *See generally*, Office Actions dated May 26, 2004, and December 21, 2004. The Office asserts a motivation to combine based on the general

compatibility known in the art and improved properties. Appellant submits such a motivation is insufficient to establish a *prima facie* case of obviousness.

For example, during prosecution Appellant submitted a Rule 132 declaration by Mme. RONDEAU presenting results of comparative testing to demonstrate a lack of motivation to combine, i.e., the general compatibility of these ingredients does not necessarily provide the asserted beneficial results, and moreover, the absence of a reasonable expectation of success, i.e., the unpredictability known in the art. *See* Response to Office Action dated May 26, 2004, submitted October 26, 2004. Even in view of the comparative testing, the Office finalized the rejections under Section 103 and asserted that that the comparison testing carried out between the inventive composition and compositions representative of Cotteret and Kao was not commensurate in scope with the present claims and did not compare the compositions disclosed in Kao and Cotteret. Office Action dated December 21, 2004, at page 7; Advisory Action dated June 15, 2005. According to the Office, a more direct comparison with the compositions of the references was required. *Id.* at page 8.

Appellant disagrees with the Office's rationale at least based on a lack of motivation to combine and lack of a reasonable expectation of success, as detailed below.

3. Claims 1-42 are patentable over Cotteret in view of Möckli and Kao in view of Möckli.

a. Cotteret in view of Möckli

Cotteret is directed to enhancing the selectivity of dyes containing at least one specific oxidation precursor (1-hydroxyalkyl- or 1-hydroxyalkoxy-2,5-diaminobenzene

type) by combining them with at least one cationic or amphoteric substantive precursor. Cotteret at Col. 1, ll. 50-56. Cotteret also discloses that "in addition to the oxidative dye precursor, . . . the dye compositions *may also* contain other oxidation dye precursors as well as direct dyes . . . ." *Id.* at Col. 5, ll. 53-57 (emphasis added). Cotteret, however, lacks any specific criteria or guidance for the addition of direct dyes, as admitted by the Office. *See* Office Action dated May 26, 2004, at 2.

Instead, Cotteret merely provides for a broad disclosure of many dyes by stating that "[t]he direct dyes themselves may be chosen from nitro dyes, azo dyes or anthraquinone dyes." *Id.* at Col. 6, ll. 5-6. Thus, Cotteret broadly indicates that potentially millions of possible direct dyes could be used to enrich the shades of his oxidation dye compositions. Such a broad disclosure hardly provides the requisite teaching or suggestion required to establish a *prima facie* case of obviousness. *See In re Baird*, 16 F.3d 380, 382, 29 U.S.P.Q.2d 1550, 1552 (Fed. Cir. 1994) (where no suggestion of variables that would give rise to the selection was found, the reference did not render obvious Applicants' invention). As discussed above, in moving from the cited prior art to the claimed invention, one cannot base a determination of obviousness on what the skilled person might try or find obvious to try. *See O'Farrell*, 853 F.3d at 903, 7 U.S.P.Q.2d at 1681.

In addition, "a reference must be considered not only for what it expressly teaches, but also what it fairly suggests." *See In re Burckel*, 592 F.2d 1175, 1179, 201 U.S.P.Q. 67, 70 (C.C.P.A. 1979). For example, Möckli (the secondary reference) lacks a disclosure that "fairly suggests" using its direct dyes in an oxidative composition. *See,*

e.g., Möckli at page 1. Möckli states that "increasing reservations are being voiced about possible toxicological risks posed not only by the [oxidative dyeing] substances used as starting materials but also by the oxidation intermediate and end products, whose precise composition is virtually uncontrollable." *Id.* Thus, Möckli does not suggest using its dyes in a composition containing oxidation dyes, like Cotteret's, and Cotteret does not suggest using its dyes in a composition lacking an oxidation dye, like Möckli's. For these reasons alone, there is no suggestion or motivation to combine these cited references and as such, a *prima facie* case of obviousness cannot be established.

In the parent application and subsequent Appeal (*see* Related Proceeding Appendix), this same rejection of Cotteret in view of Möckli was maintained at the Board in the absence of objective evidence. To that end, Appellant submitted in the present continuation application a Rule 132 declaration of Mme. RONDEAU demonstrating that the general compatibility of these types of ingredients does not necessarily provide for the asserted beneficial results, e.g., the Office's assertion that "Cotteret teaches that the claimed polymers result in various improved properties such as improved selectivity in oxidation dyeing compositions." *See* Office Action dated December 21, 2004, at 3.

The RONDEAU Declaration describes comparative testing between Appellant's invention and comparative Compositions A and B, of which Composition B is relevant with regard to the combination of Cotteret and Möckli. In this comparison, the inventive composition comprises, among other things, at least one cationic direct dye (Basic Orange 31) with at least one cationic or amphoteric substantive polymer (a

polyquaternary ammonium). Comparative Composition B, representative of the teachings in Cotteret, i.e., utilizes a neutral direct dye as opposed to a cationic direct dye exemplified in the inventive composition.

The results of the comparison are shown in the table on page 4 of the RONDEAU Declaration. As demonstrated, the color variation, as measured by a spectrocolorimeter, for the inventive composition is much less than for the comparative Composition B. In other words, the hair dyed with the inventive composition containing a cationic direct dye exhibits a much less selective color than the hair dyed with comparative Composition B corresponding to Cotteret's disclosure. This result is desirable as a dye with a less selective coloration produces a homogenous color distribution along the keratin fiber. *See* Appellant's Specification at page 2, ll. 9-20. As such, the comparison demonstrates that at least with regard to color selectivity, the inventive composition gives colorations that are less selective, i.e., form an even distribution along the fiber, than dye compositions falling within the disclosures of Cotteret (composition A), which suggest color variations. *See* Declaration of Mme. RONDEAU.

Cotteret's teaching that the addition of direct dyes can "modify the shades to enrich the shades with glints" suggests any direct dye can yield this beneficial result. However, the discrepancy in color variation between the inventive composition and Composition B clearly demonstrates that Cotteret's suggestion is just a generalized approach for numerous possible choices. Furthermore, this result supports Appellant's position that it would not have been obvious to choose any of the dyes from Cotteret's

broad disclosure of "nitro dyes, azo dyes or anthraquinone dyes," i.e., direct dyes, and reasonably expect success. Clearly, all dyes do not give the same result.

Even though an "acceptable" color variation is not defined, the comparison illustrates that to be a satisfactory dye composition, a dye formulation needs to be "less selective," "dye uniformly," and withstand stress such as perspiration, washing, etc. Clearly, certain formulations may exhibit those characteristics more so than others. Accordingly, by examining the teachings of Cotteret and Möckli one cannot predict the combination of components that would result in a formulation that is "less selective," "dye[s] uniformly," and capable of withstanding stresses. This unpredictability in the art suggests the absence of a reasonable expectation of success and supports the position that the teachings in the combined references merely provide a general approach, which is insufficient to establish a *prima facie* case of obviousness.

Thus, Appellants respectfully request the reversal of the rejection.

b. Kao in view of Möckli

As noted above, "a reference must be considered not only for what it expressly teaches, but also what it fairly suggests." *See Burckel*, 592 F.2d at 1179, 201 U.S.P.Q. at 70. As such, Kao (the primary reference) discloses compositions for dyeing or toning human hair using direct dyes. Noting that the prior art compositions were not able to achieve a satisfactory level of stability, Kao discloses a composition achieving improved stability and containing at least one direct dye, preferably cationic, as well as 0.1 to 7.5% by weight of at least one hydroxy-C_2-C_4-alkyl guar gum and/or its quaternary

derivatives. Translated Kao at page 1. Thus, Kao suggests improving the stability of dye compositions by using a hydroxy-C_2-C_4-alkyl guar gum together with a dye compatible with that guar gum. *Id.* at page 2. In addition, Kao provides for the addition of at least one synthetic or natural hair conditioning polymer (e.g., cationic polymers) in combination with the required guar gum or its derivative in the dye composition. *Id.* at pages 1, 3.

Specifically, Kao teaches that the addition of the hydroxyalkyl guar gum derivative dramatically impacts the absorption of the dye and thus, is responsible for the substantially improved color intensity. *Id.* at page 1. This requirement of a guar gum suggests that its absence will directly influence the overall color intensity. Yet, the Office's rationale in combining Kao and Möckli, a person of ordinary skill in the art is expected to selectively ignore this requirement of the guar gum and merely utilize Kao for the cationic dyes taught on page 2 of the translation and the *optional* cationic polymers, i.e., hair conditioning polymers.

Kao, moreover, lists forty-two (42) direct dyes that have enhanced stability and dye uptake properties with the addition of the guar gum derivative on pages 2-3 of the translation, including nineteen preferred cationic dyes. Those dyes include, for example, Basic Blue 99, Basic Brown 17, Basic Red 76, and Basic Yellow 57. Translated Kao at page 2. Kao, thus, teaches only that these listed basic dyes "are especially enhanced by the addition of the guar gum derivative." Translated Kao at page 2. However, none of the dyes in this list falls within the scope of the presently claimed cationic direct dyes.

Möckli, the secondary reference, provides no remedy for Kao's deficiencies. Even though Möckli discloses cationic direct dyes that overlap with those presently claimed, this fact is insufficient to serve as motivation for combination with Kao, particularly because Möckli fails to teach or suggest that any of its dyes would be compatible with Kao's guar gums. Kao also fails to suggest that Möckli's dyes would be compatible with its guar gums. Further, Möckli discredits the preferred cationic dyes of Kao; in particular, Basic Blue 99, Basic Brown 16, Basic Brown 17, Basic Red 76, and Basic Yellow 57, stating that a deep black coloration cannot be achieved with these cationic hair dyes. Möckli at page 1.

As with the Cotteret and Möckli rejection, Kao in view of Möckli was also at issue in the parent application and subsequent appeal. *See* Related Proceedings Appendix. As such, to further support Appellant's position, the Declaration of Mme. RONDEAU was submitted. *See* Evidence Appendix. As discussed above, the Declaration describes comparative testing between Appellant's inventive composition and comparative Composition A. In this comparison, the inventive composition comprises, among other things, at least one cationic direct dye (Basic Orange 31) with at least one cationic or amphoteric substantive polymer (a polyquaternary ammonium). Comparative Composition A, representative of the teachings in Kao, however, utilizes the same direct dye (Basic Orange 31) with a quaternized hydroxypropylguar, i.e., hydroxy-C_2-C_4-alkyl guar gum.

The results of the comparison are shown in the table on page 4 of the Declaration. As demonstrated, the color variation, as measured by a

spectrocolorimeter, for the inventive composition is much less than the comparative Composition A, which contains a guar gum as required by Kao and not present in the inventive composition. Under the Office's rationale, substituting Kao's teaching of specific cationic direct dyes with those taught in Möckli would yield a composition with improved color intensity. This substitution, however, clearly does not yield the homogenous color as achieved by the inventive composition. Instead, the disparate color variations demonstrate the influence the guar gum has on the dye composition and that one of ordinary skill in the art would not have reasonably expected a successful combination.

The Office, however, takes issue with the absence of a conditioning polymer from composition A. Office Action dated December 21, 2004, at page 7. But the Office admits that Kao teaches compositions for dyeing or toning human hair, which comprise a direct dye and a hydroxyalkyl guar gum or a quanternary salt thereof. Office Action dated December 21, 2004, at page 4, lines 5-7. As such, composition A in the declaration included Basic Orange 31 (a cationic direct dye), Jaguar C136 (a quaternized hydroxypropyl guar gum), dodecylpolyglucoside, amino 2 methyl propanol 1, and water. Thus, all the required elements of Kao's disclosure were included in the dye composition examined in the comparison. Despite these teachings, the Office asserts that "Kao was relied upon to teach the addition of cationic conditioning polymers to hair dyeing composition containing basic (cationic) dyes," but "[a]pplicant does not compare a composition within the scope of Kao containing either dimethyldiallyl

ammonium chloride or cationic vinylpyrrolidone polymers and a basic dye." *Id.* Appellant disagrees.

In fact, the substantive cationic/amphoteric polymer in the inventive composition assists in "giving colorations that are less selective and that show good resistance to the various attacking factors to the hair." Appellant's Specification at page 2. In a similar manner, Kao states that "the color intensity, that is, the ability to absorb dye, is substantially improved, compared to current products, by the addition of the hydroxyalkyl guar gum derivative; the product also exhibits excellent stability." Kao at page 1. Accordingly, both polymers arguably have a similar purpose. This similarity in purpose is ignored by the Office and instead, the Office picks among the optional ingredients to arrive at the inclusion of "conditioning polymers." It is unclear why "conditioning polymers" are chosen, but for Appellant's teachings in the specification.

To require Appellant to include any hair conditioning polymer would be one thing, but to insist that Appellant compare a composition having specific polymers identified by the Office, i.e., dimethyldiallyl ammonium chloride and cationic vinylpyrrolidone, is unreasonable. For example, it is only on page 3 that Kao mentions the optional inclusion of "at least one synthetic or natural hair-conditioning polymer." According to this disclosure, "basically *all* types of polymers can be used: non-ionic, ionic, amphoteric and cationic polymers, cationic polymers are preferred within the framework of the invention." Kao at page 3 (emphasis added). Given this disclosure, it is unclear how the Office concludes that a cellulose derivative (dimethyldiallyl ammonium chloride) must be included in the comparative dye composition. *See In re Chapman*, 357 F.2d

418, 422, 148 U.S.P.Q. 711, 714 (C.C.P.A. 1966) (requiring an applicant to compare the claimed invention with a polymer suggest by the combination of references "would amount to requiring comparison of the results of the invention with the results of the invention," which is not required for comparative testing.).

In addition, the Office singles out for inclusion "cationic vinylpyrrolidone" polymer. Office Action at page 7. Despite cationic polymers being "preferred," there is nothing in Kao directing a skilled artisan to the requirement of vinyl pyrrolidone polymers as the cationic polymers; it is only the present specification that provides this guidance and using the specification as a template is impermissible hindsight.

Moreover, if the Office is going to require the inclusion of hair conditioning polymers, then the other optional additives must equally be included, i.e., surfactants, alcohols, emulsifiers, pH regulators, solvents and binders, solubilizers, preservatives, perfumes, etc. because these ingredients are also equally taught in Kao's disclosure. This leads to not only an unlimited number of dye compositions but also unlimited number of possible combinations for testing. But from Kao's disclosure and claims, the dye composition clearly must include at least one direct dye and at least one hydroxy C_2-C_4 alkyl guar gum or its quaternary salt. Kao at page 1. Composition A includes those ingredients and thus, is representative of Kao's disclosure.

As stated with respect to the conclusions drawn from the comparisons with Cotteret's compositions, the Kao composition in view of the inventive composition demonstrates the wide range of variability between different possible formulations. This

wide range of variability indicates that the generic disclosure of any dye or even "preferred" cationic direct dyes and even further, with optional ingredients such as conditioning polymers, suggests a mere general approach. A general approach, however, cannot support a motivation to combine, especially in view of the variability demonstrated in the formulations of the declaration. *See In re O'Farrell*, 853 F.2d 894, 70 U.S.P.Q.2d 1673 (Fed. Cir. 1988). Instead, this variability suggests that there is a lack of predictability in the art and the need for more specific guidance as to the particular formulation in comparison to broad disclosures of individual classes of ingredients.

Thus, Appellants respectfully request the reversal of this rejection.

Conclusion

For the reasons given above, pending claims 1-42 are allowable and reversal of the Examiner's rejection is respectfully requested. The submission of Mme. RONDEAU's Declaration demonstrates a lack of motivation to combine, i.e., the general compatibility of these ingredients do not necessarily provide for the asserted beneficial results, and moreover, the absence of a reasonable expectation of success, i.e., the unpredictability known in the art. Thus, a *prima facie* case of obviousness has not been established.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: March 13. 2006
December 20, 2005(original filing date) By: 

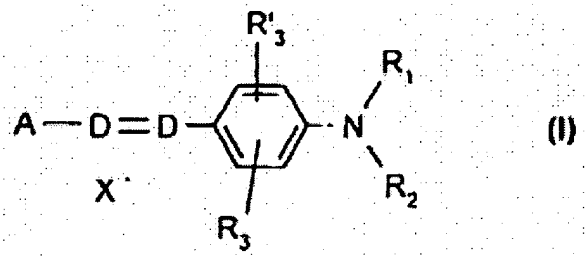
Adriana L. Burgy
Reg. No. 48,564

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

1. (Previously Presented) A composition for dyeing keratin fibers, said composition comprising, in a medium suitable for dyeing,

(i) at least one cationic direct dye of formula (I), (II), (III) or (III') below:

wherein, in said formula (I):



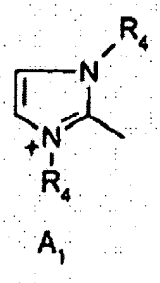
D represents a nitrogen atom and a -CH group,

R_1 and R_2 are identical or different and represent a hydrogen atom, a C_1-C_4 alkyl radical which is unsubstituted or substituted with a -CN, -OH or $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4'aminophenyl radical;

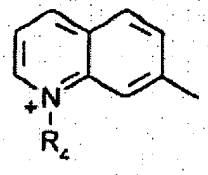
R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

X- represents an anion;

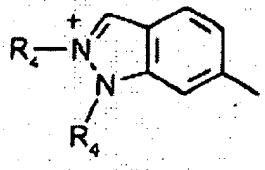
A represents a group selected from structures A_1 to A_{17} and A_{19} below:



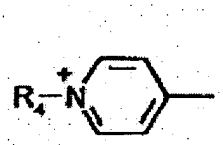
A_1



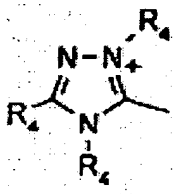
A_2



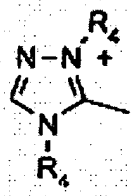
A_3



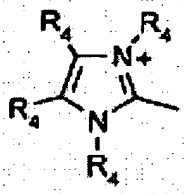
A_4



A_5



A_6



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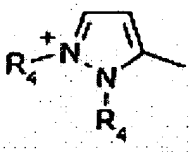
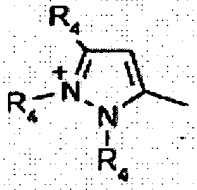
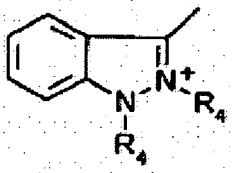


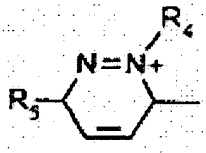
A_8



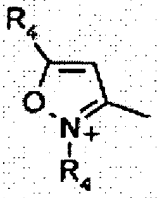
A_9



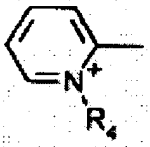
A_{10}



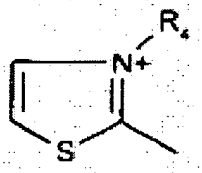
A_{11}



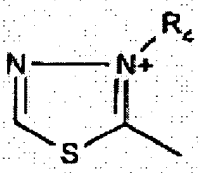
A_{12}



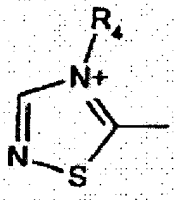
A_{13}



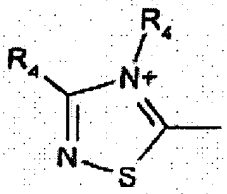
A_{14}



A_{15}

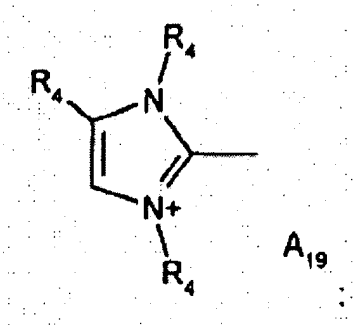


A_{16}



A_{17}

and



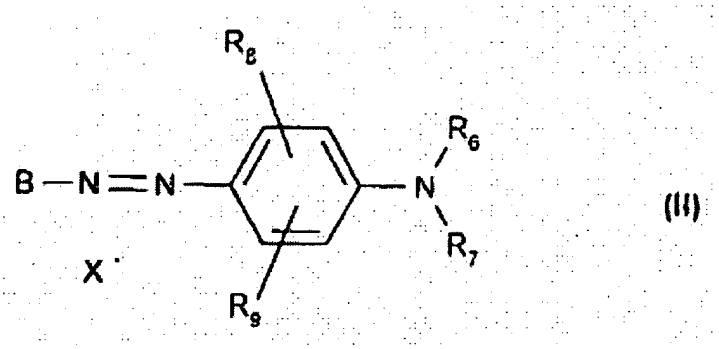
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents -CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, A_{14}-A_{17} and A_{19};



(II)

wherein, in said formula (II):

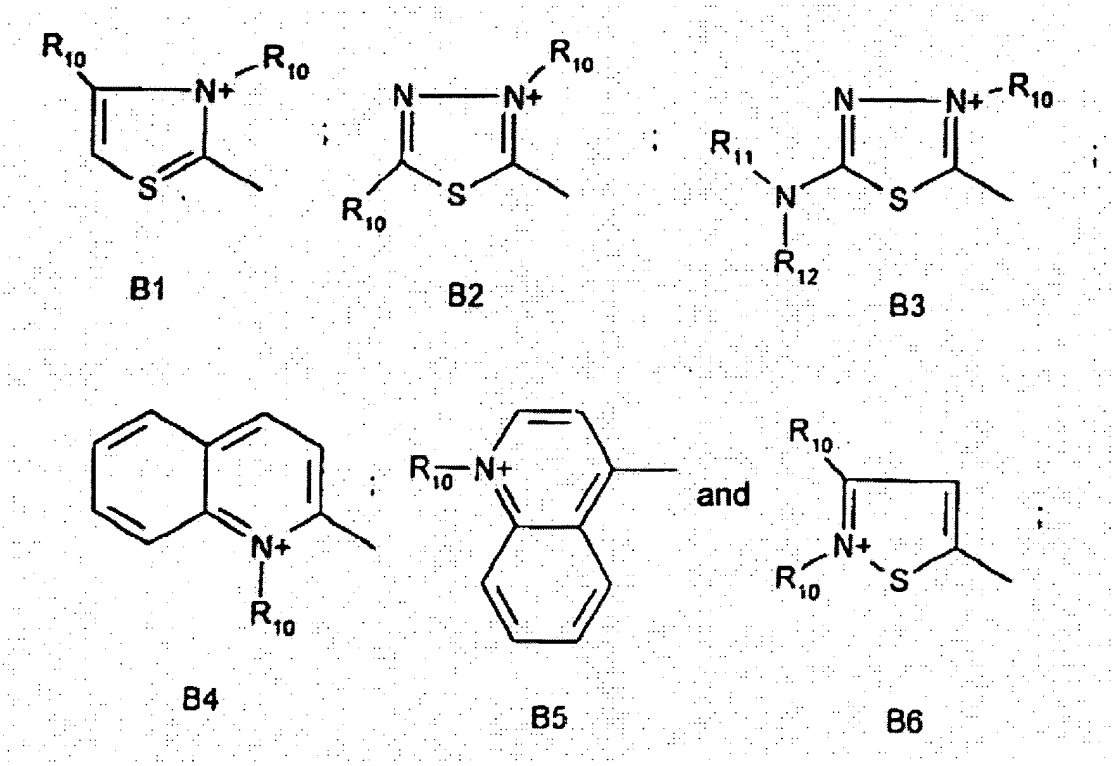
R_6 represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a -CN radical;

X- represents an anion;

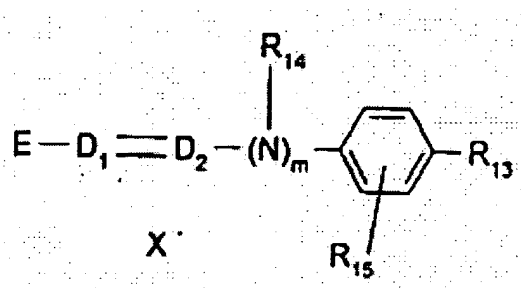
B represents a group selected from structures B1 to B6 below:



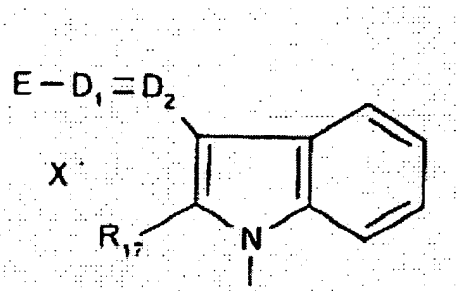
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III'):

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

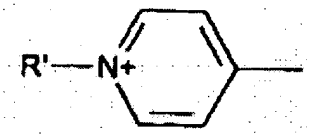
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

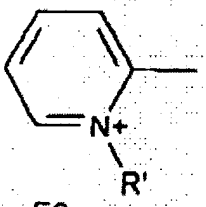
with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a -CH group and m = 0;

X^- represents an anion; and

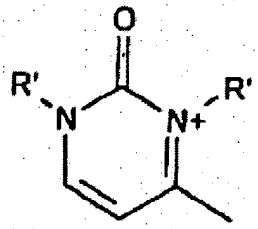
E represents a group from structures E1 to E8 below:



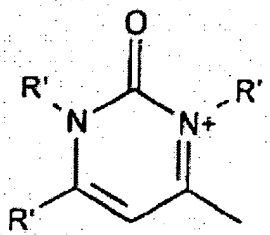
E1



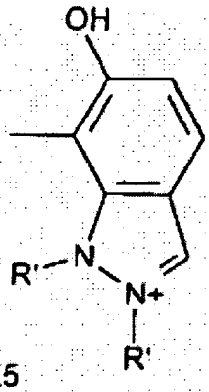
E2



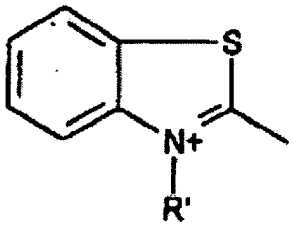
E3



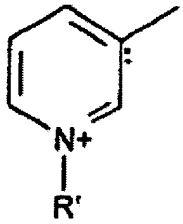
E4



E5

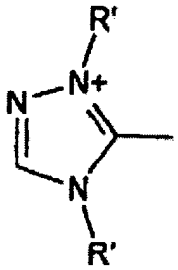


E6



E7

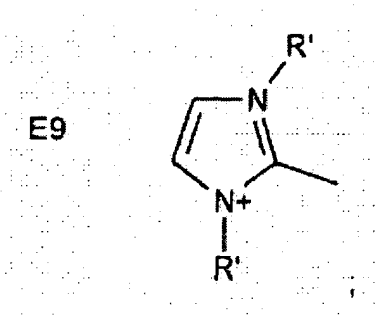
and



E8

wherein R' represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below:

E9 

wherein R' represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

(ii) at least one cationic or amphoteric substantive polymer chosen from:

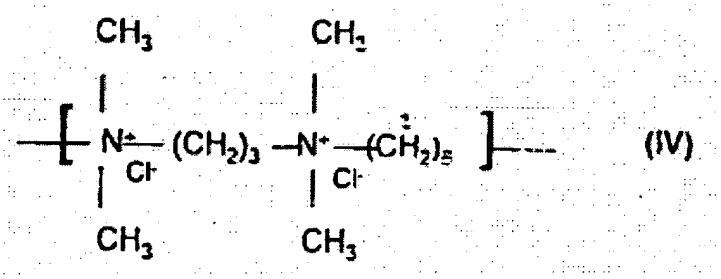
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

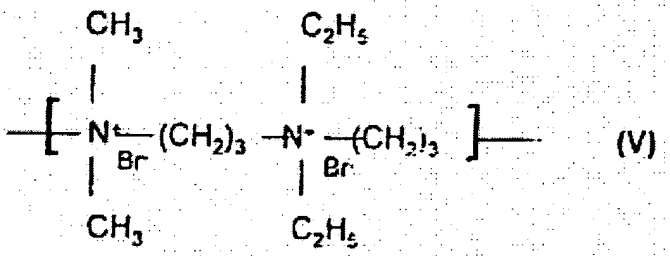
(d) polyquaternary ammonium polymers selected from:

- polymers of repeating units having formula (IV) below:



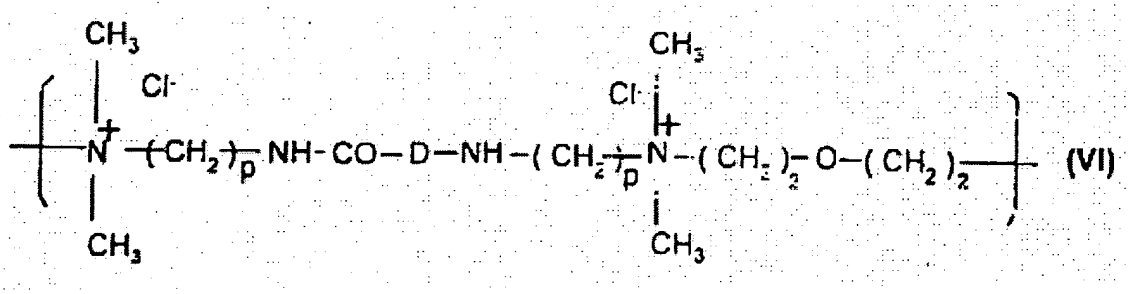
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

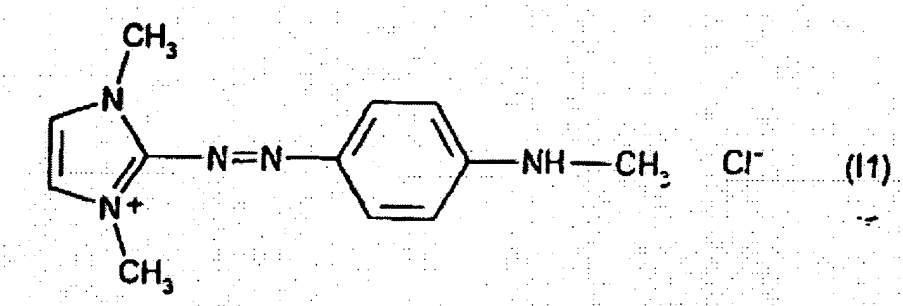
(e) vinylpyrrolidone copolymers containing cationic units.

2. (Original) A composition according to Claim 1, wherein in said formula (I), (II), (III), or (III'), X^- represents an anion of chloride, methyl sulfate, or acetate.

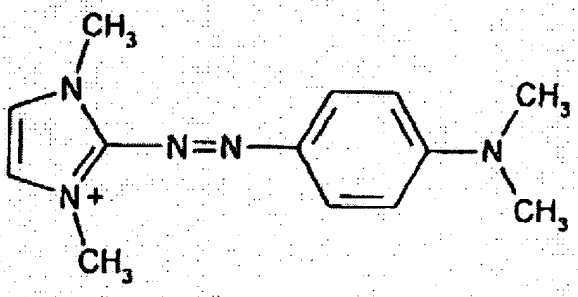
3. (Original) A composition according to Claim 1, wherein said keratin fibers are human keratin fibers.

4. (Original) A composition according to Claim 3, wherein said human keratin fibers are human hair.

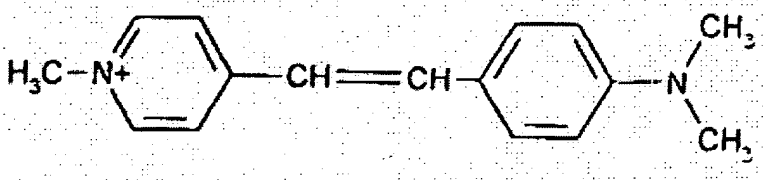
5. (Previously Presented) A composition according to Claim 1, wherein said at least one cationic direct dye of formula (I) is selected from the compounds having structures (I1) to (I29), (I31) to (I51), and (I53) to (I55) below:



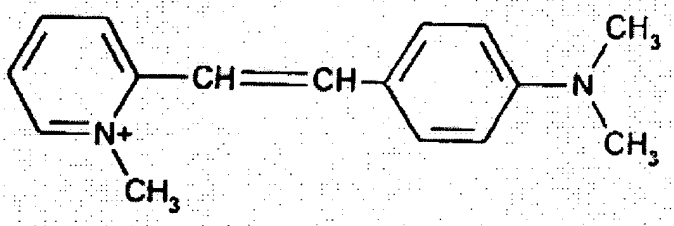
(I1)



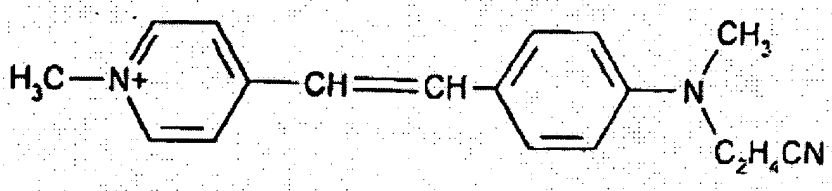
(I2)



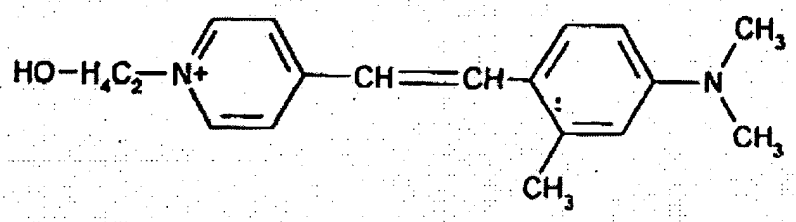
(I3)



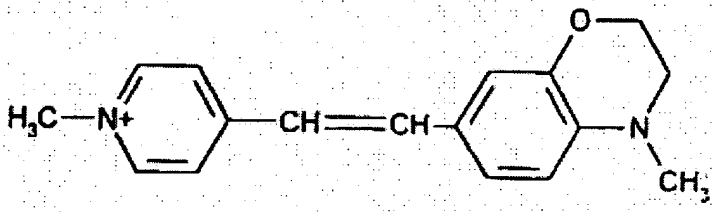
(I4)



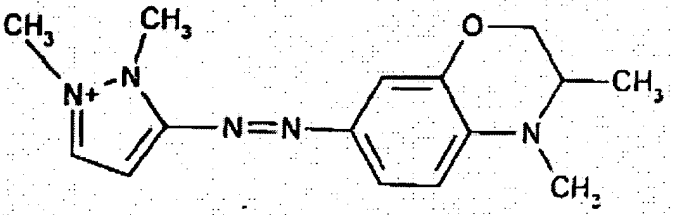
(I5)



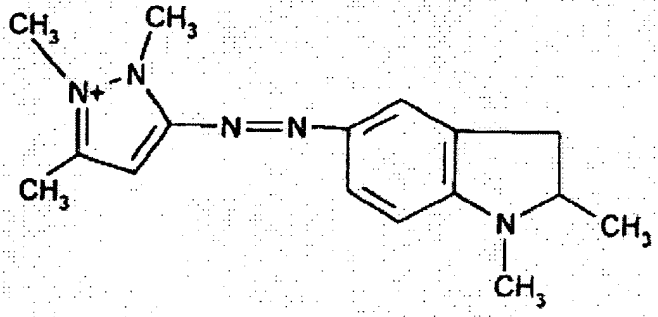
(I6)



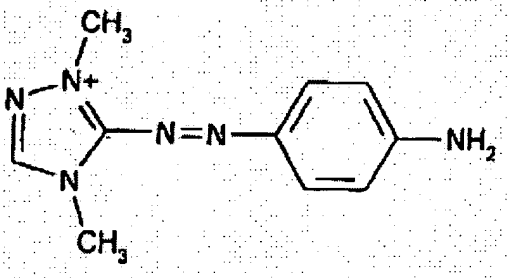
(I7)



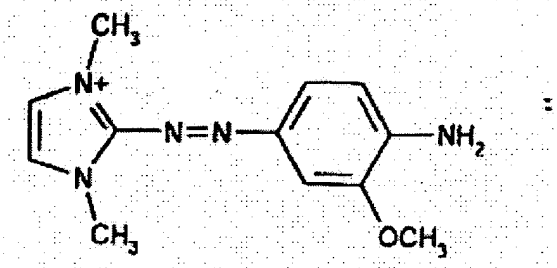
(I8)



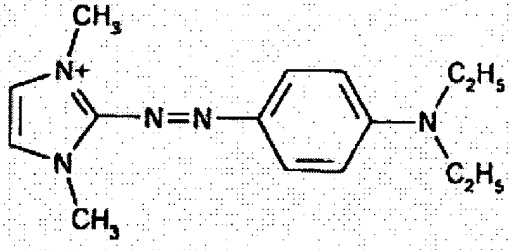
(I9)



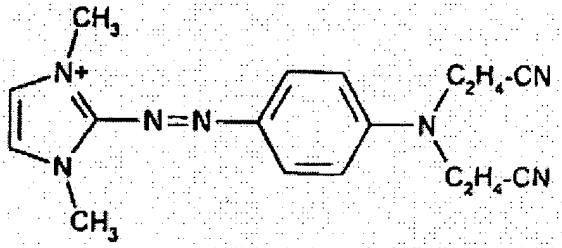
(I10)



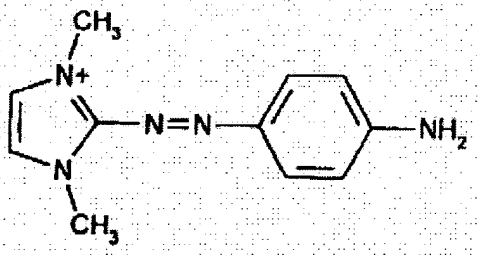
(I11)



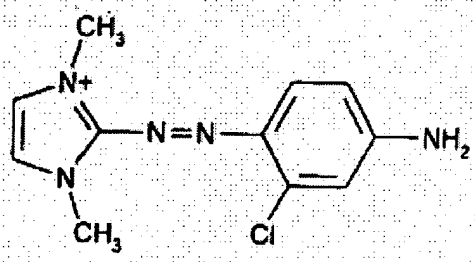
(I12)



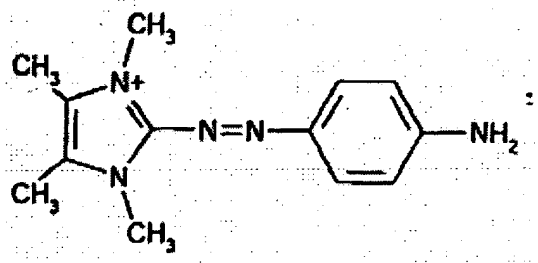
(I13)



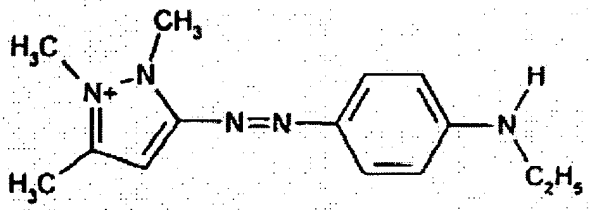
(I14)



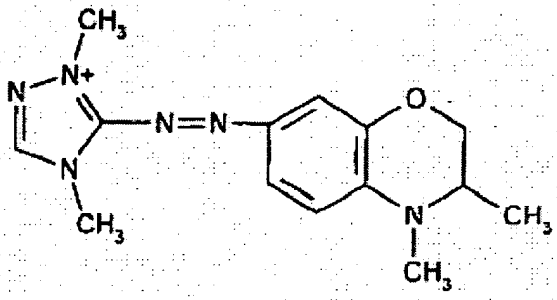
(I15)



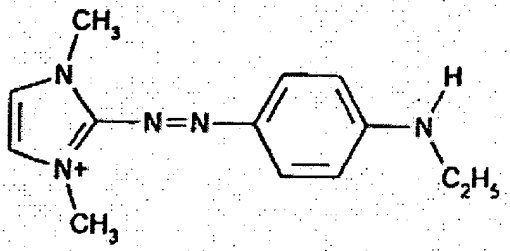
Cl⁻ (I16)



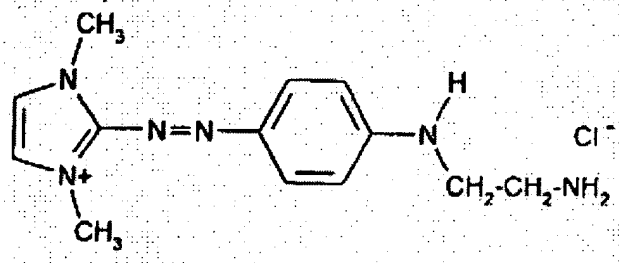
Cl⁻ (I17)



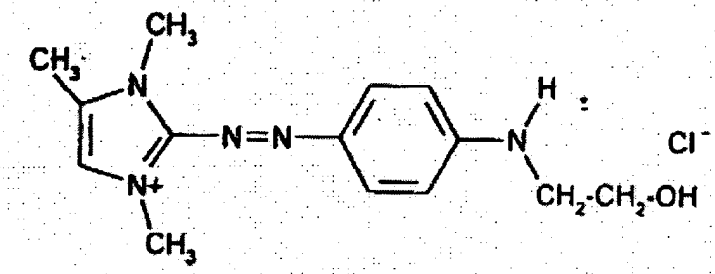
Cl⁻ (I18)



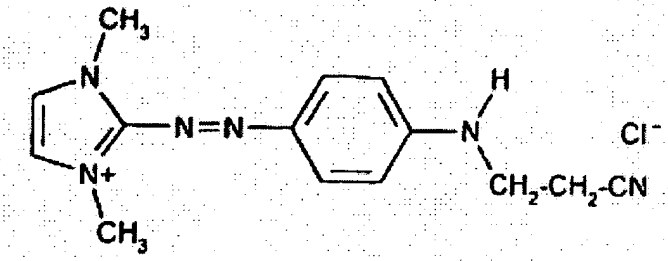
Cl⁻ (I19)



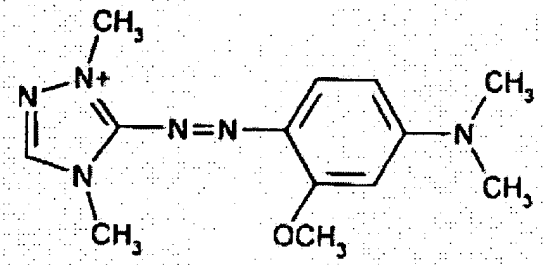
Cl⁻ (I20)



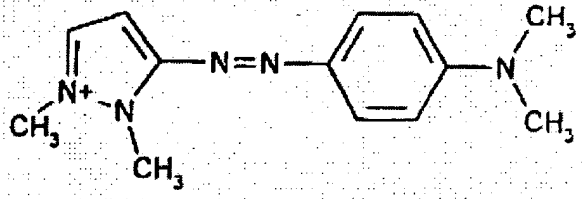
(I21)



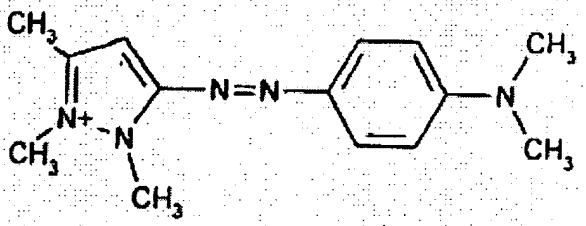
(I22)



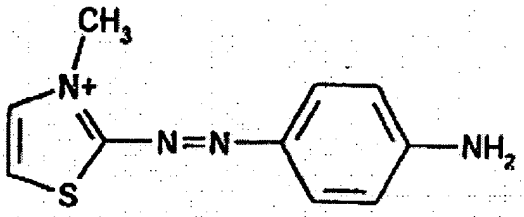
(I23)



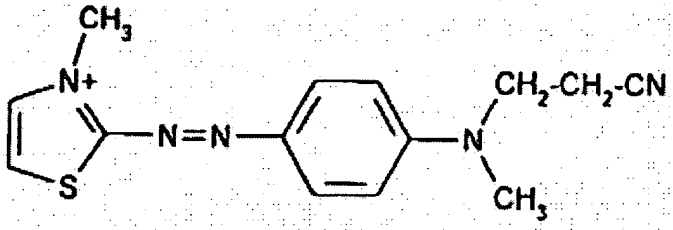
(I24)



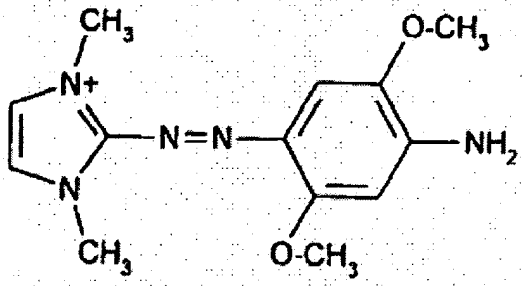
(I25)



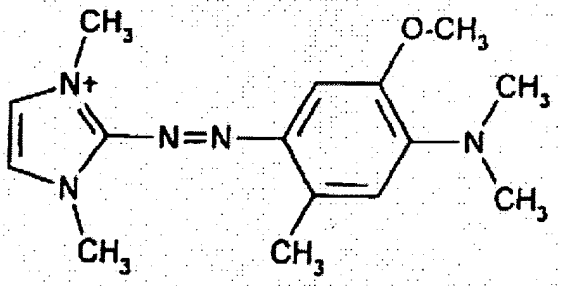
Cl^- (I26)



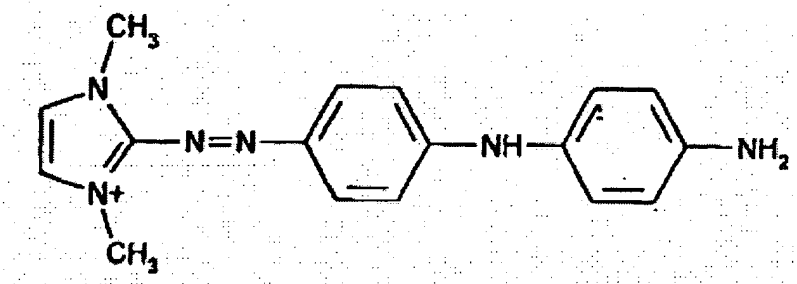
Cl^- (I27)



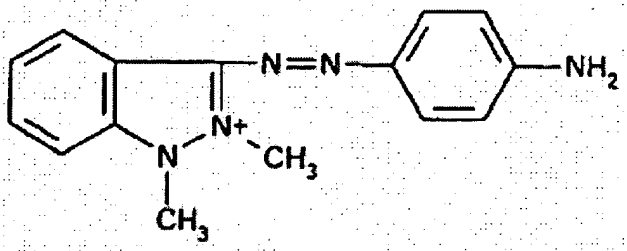
Cl^- (I28)



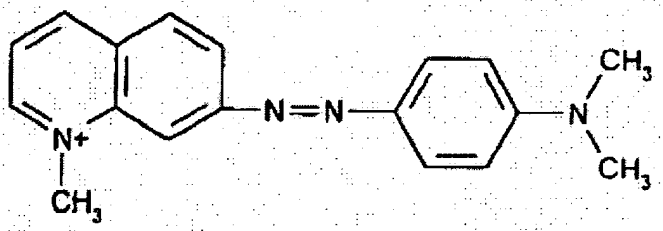
Cl^- (I29)



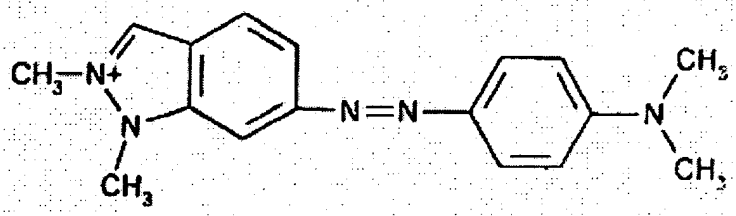
Cl⁻ (I31)



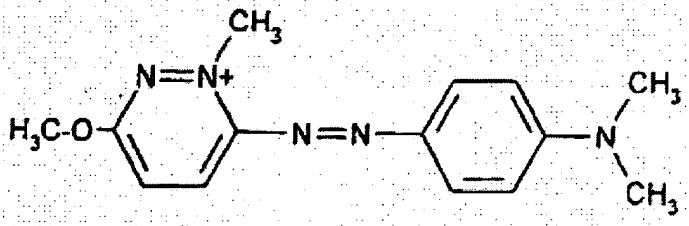
Cl⁻ (I32)



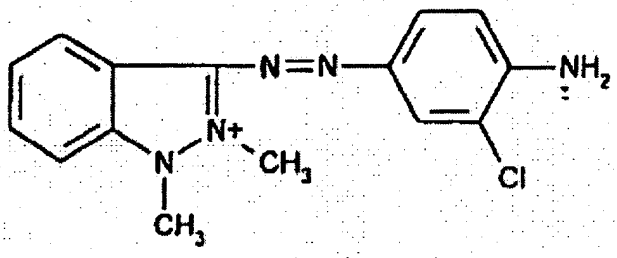
Cl⁻ (I33)



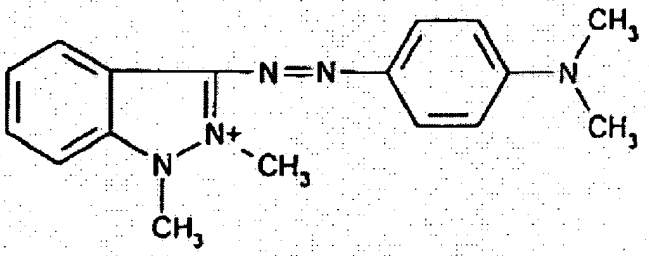
Cl⁻ (I34)



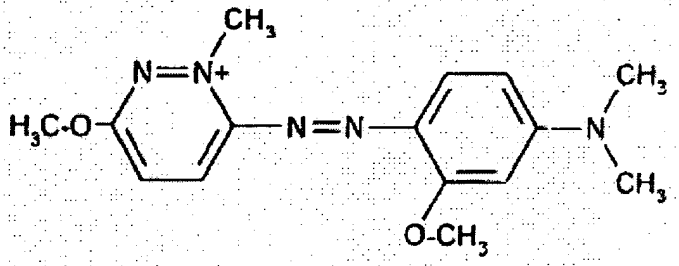
Cl⁻ (I35)



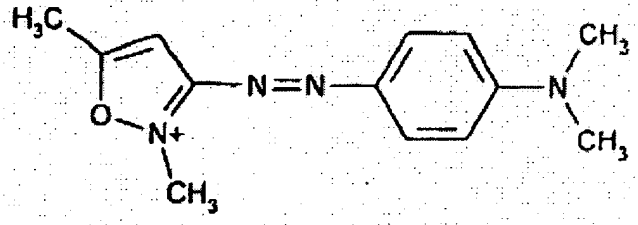
Cl⁻ (I36)



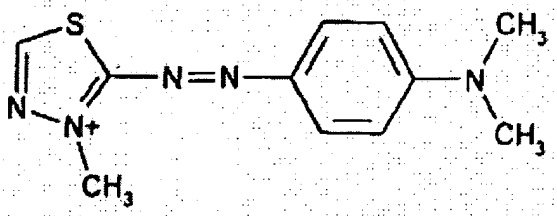
Cl⁻ (I37)



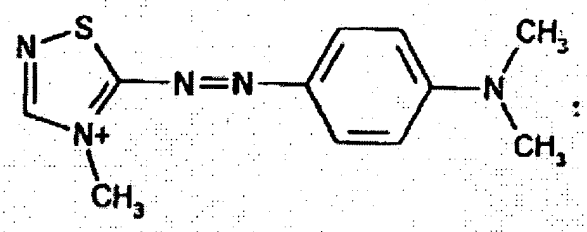
Cl⁻ (I38)



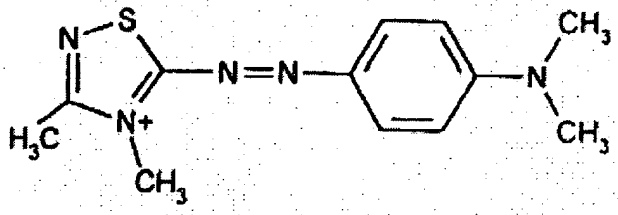
Cl⁻ (I39)



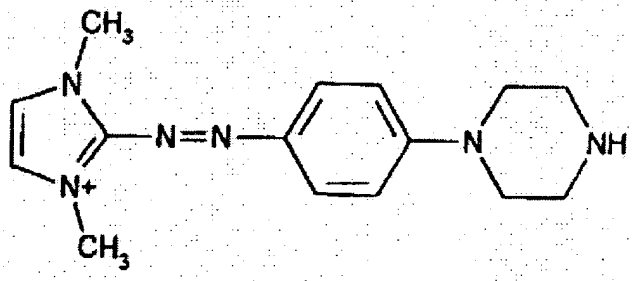
Cl⁻ (I40)



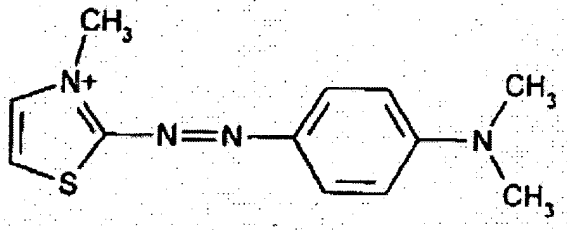
(I41)



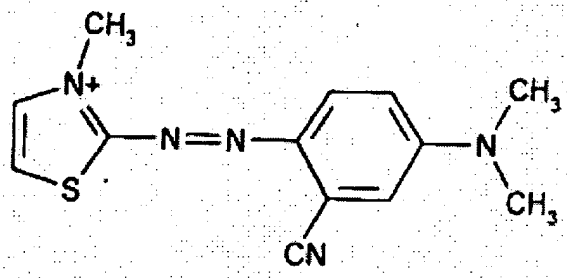
(I42)



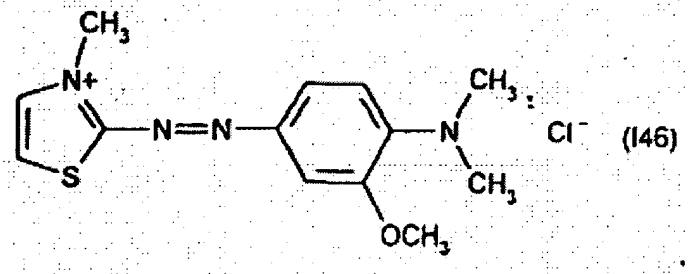
(I43)



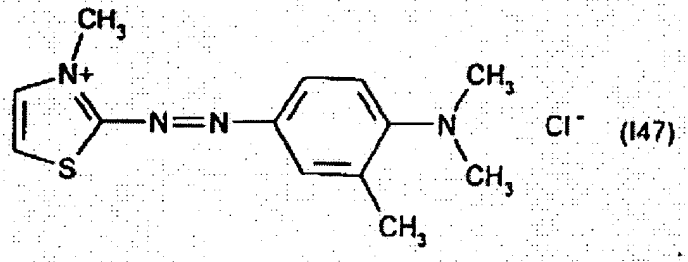
(I44)



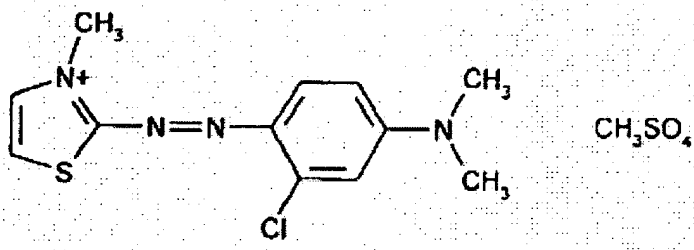
(I45)



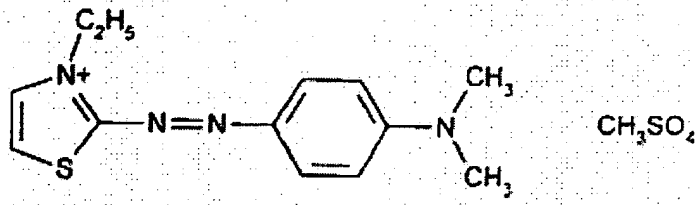
(146)



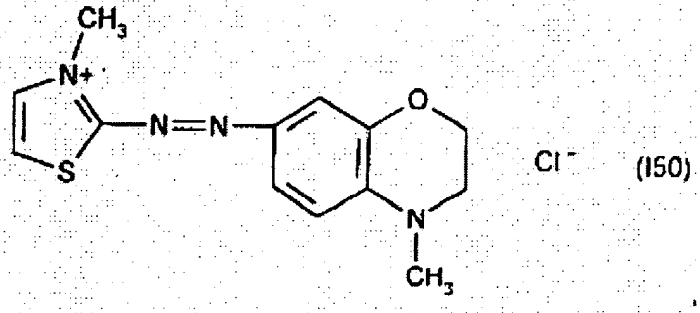
(147)



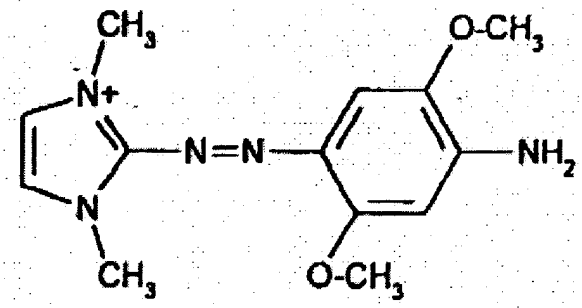
(148)



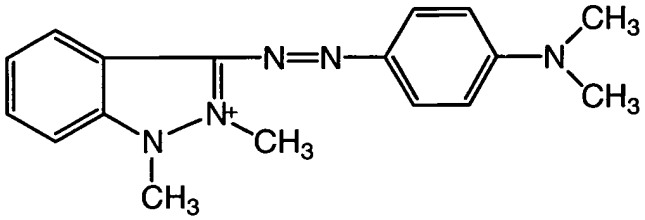
(149)



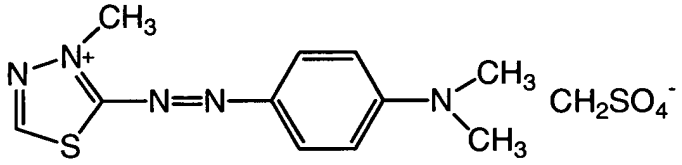
(150)



(I51)

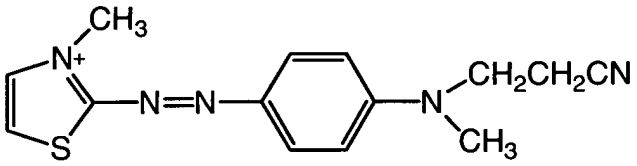


(I53)



(I54)

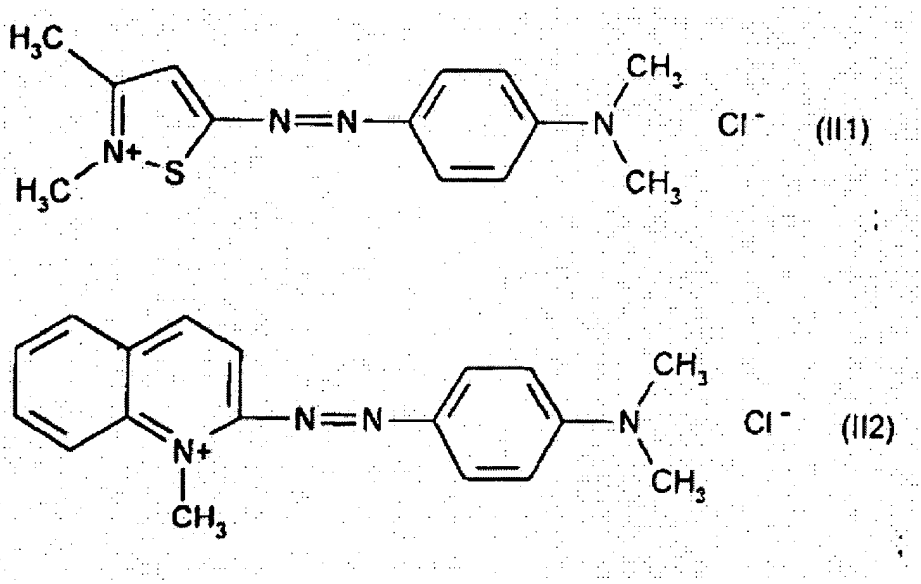
and

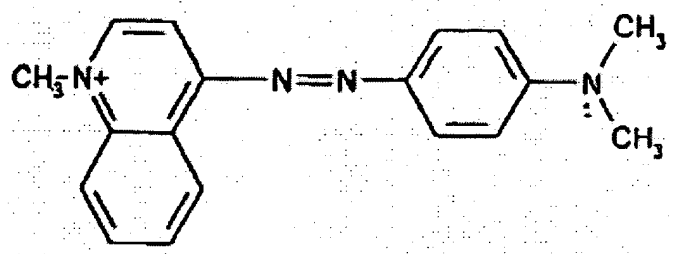


(I55)

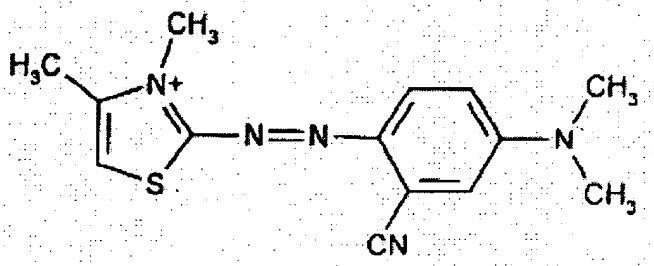
6. (Original) A composition according to Claim 5, wherein said at least one cationic direct dye has structure (I1), (I2), (I14) or (I31).

7. (Original) A composition according to Claim 1, wherein said at least one cationic direct dye of formula (II) is selected from the compounds having structures (II1) to (II3), (II5), (II6), (II8), and (II10) to (II12) below:

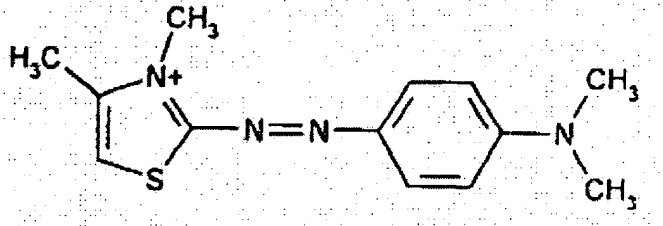



CH3
CH3 N+
N=N
N
CH3
Cl-

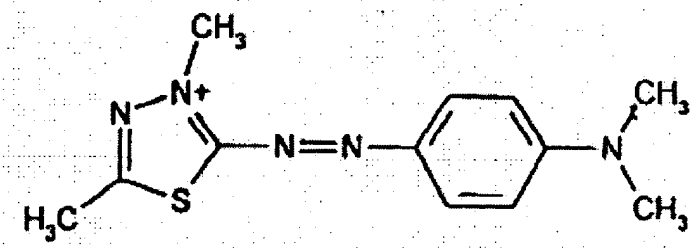
(II3)


CH3
H3C
N+
N=N
N
CH3
S
CN
Cl-

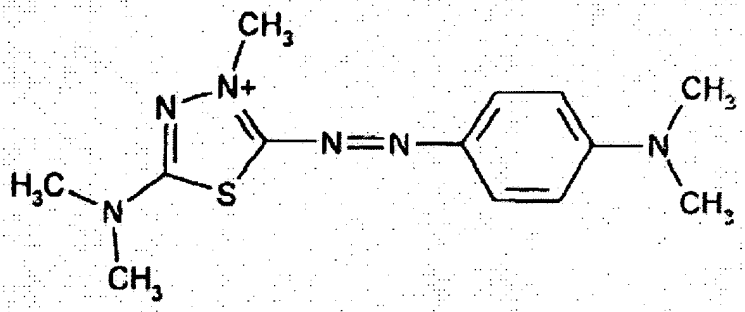
(II5)


CH3
H3C
N+
N=N
N
CH3
S
CH3SO4-

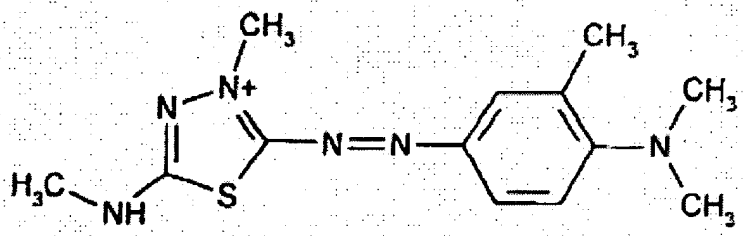
(II6)



$CH_3SO_4^-$ (II8)

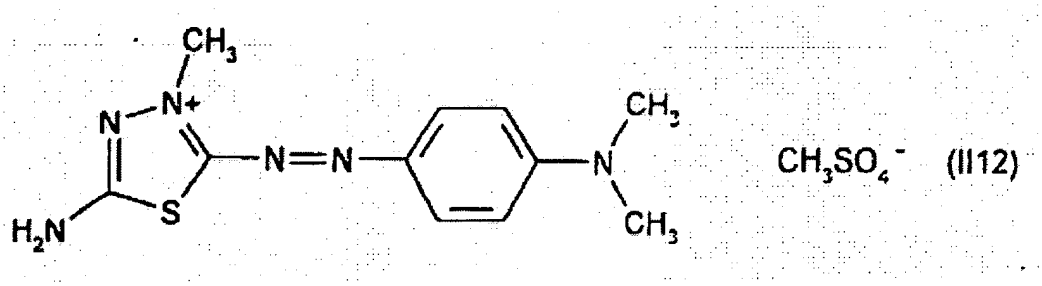


$CH_3SO_4^-$ (II10)



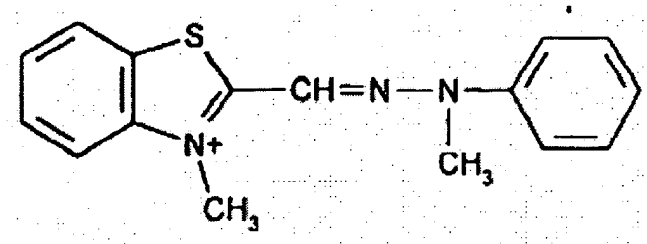
$CH_3SO_4^-$ (II11)

and

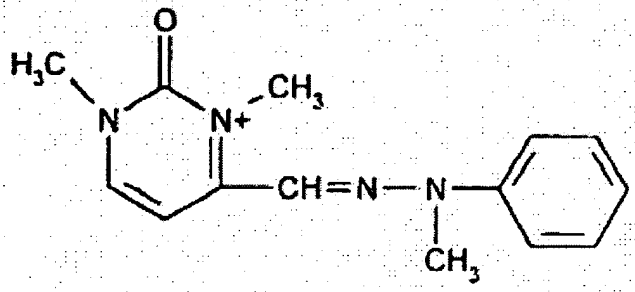


(II12)

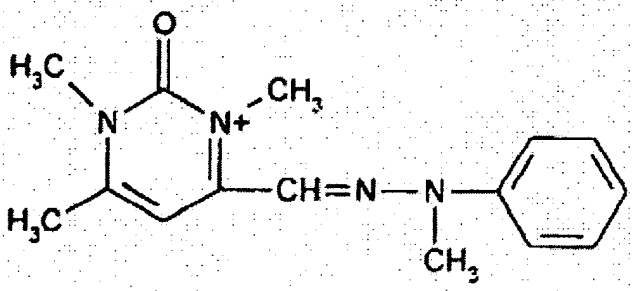
8. (Original) A composition according to Claim 1, wherein said at least one cationic direct dye of formula (III) is selected from the compounds having structures (III1) to (III18) below:



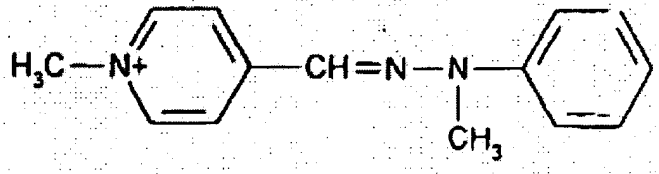
Cl^- (III1)



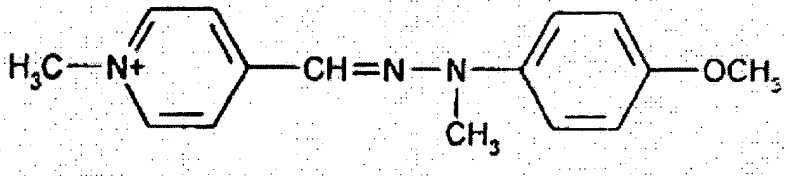
Cl^- (III2)



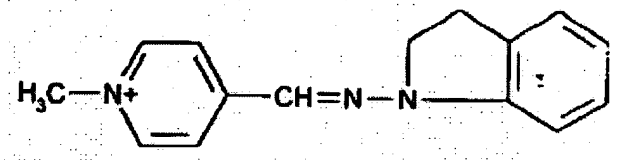
Cl^- (III3)



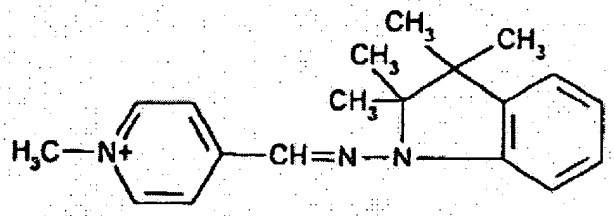
$CH_3SO_4^-$ (III4)



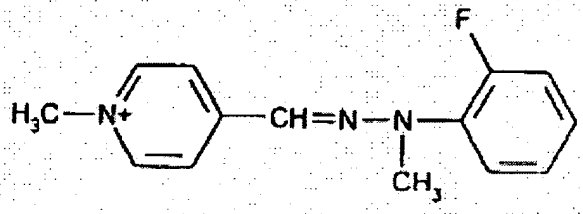
Cl^- (III5)



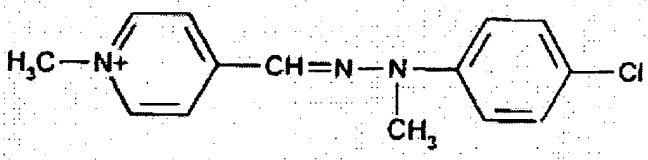
$CH_3SO_4^-$ (III6)



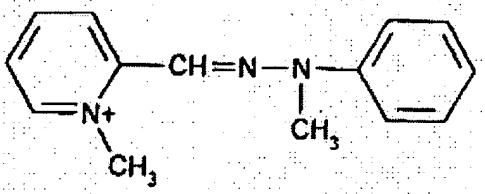
$CH_3SO_4^-$ (III7)



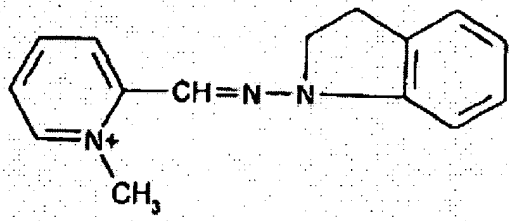
Cl^- (III8)



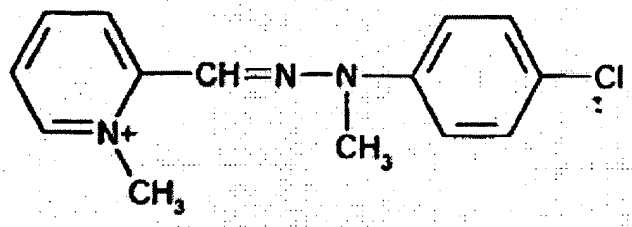
Cl^- (III9)



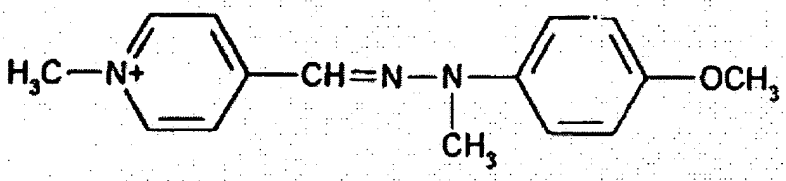
$CH_3SO_4^-$ (III10)



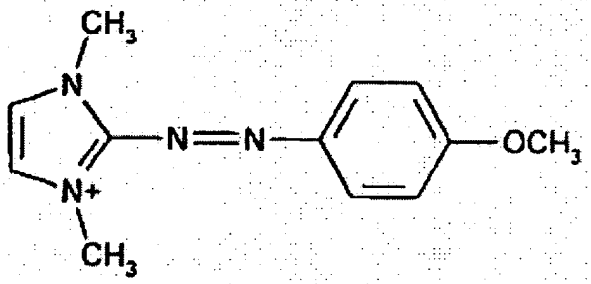
$CH_3SO_4^-$ (III11)



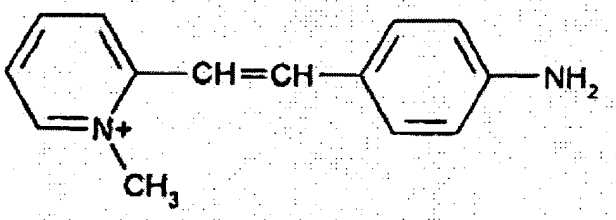
(III12)



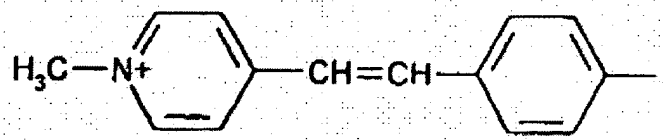
(III13)



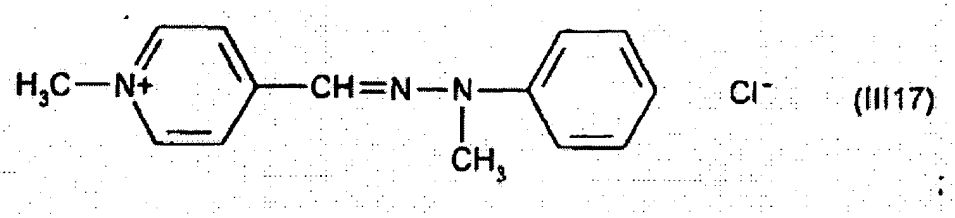
(III14)



(III15)

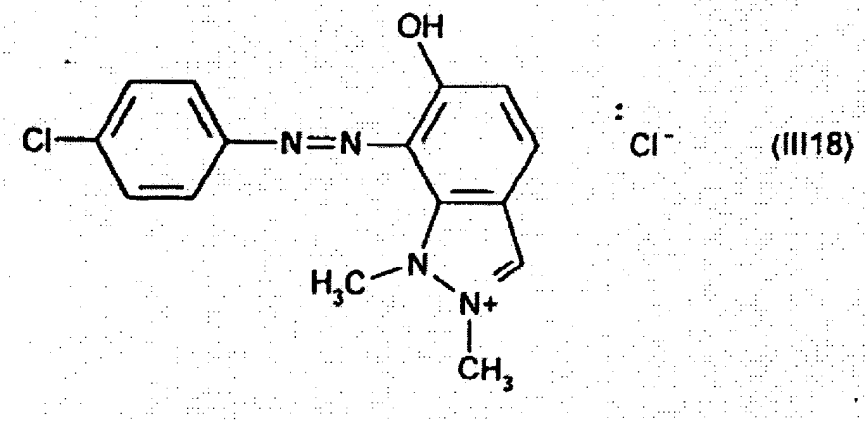


(III16)



(III17)

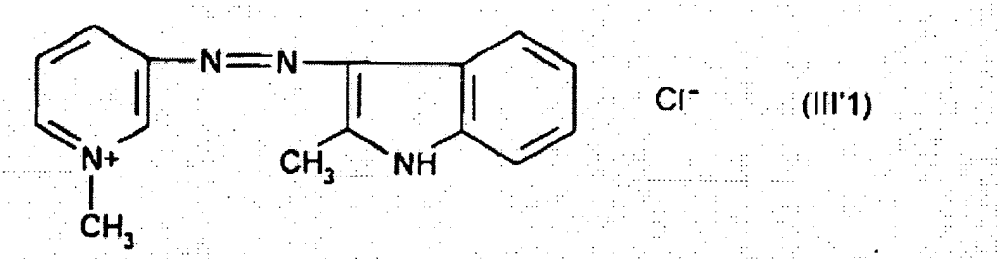
and



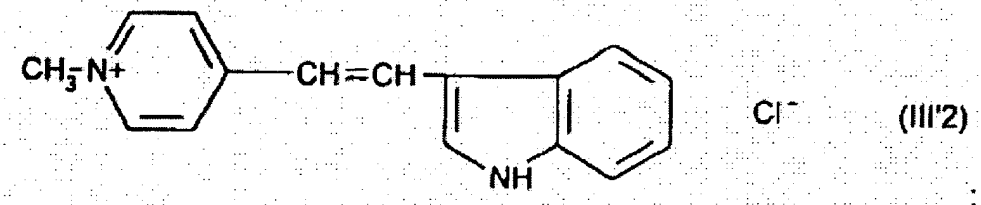
(III18)

9. (Original) A composition according to Claim 8, wherein said at least one cationic direct dye of formula (III) has structure (III4), (III5) or (III13).

10. (Original) A composition according to Claim 1, wherein said at least one cationic direct dye of formula (III') is selected from the compounds having structures (III'1) to (III'3) below:

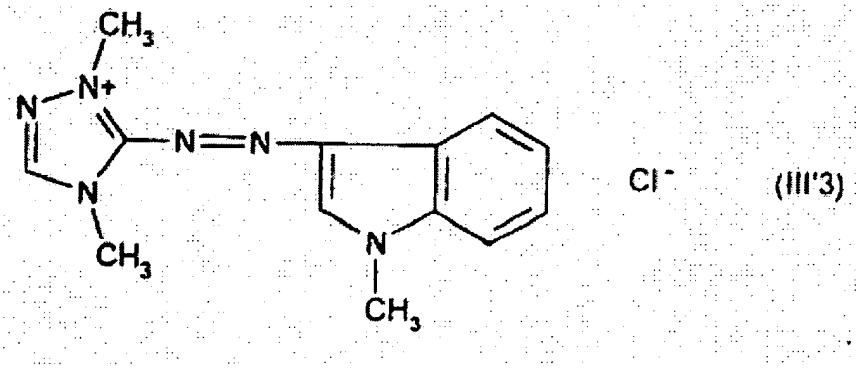


(III'1)



(III'2)

and



(III'3)

11. (Original) A composition according to Claim 1, wherein said at least one cationic direct dye of formulae (I), (II), (III) or (III') is present in an amount ranging from about 0.001 to about 10% by weight relative to the total weight of the composition.

12. (Original) A composition according to Claim 11, wherein said at least one cationic direct dye of formulae (I), (II), (III) or (III') is present in amount ranging from about 0.005 to about 5% by weight relative to the total weight of the composition.

13. (Previously Presented) A composition according to Claim 1, wherein said at least one cationic or amphoteric substantive polymer is a polymeric quaternary ammonium salt of hydroxyethyl cellulose reacted with a lauryl dimethyl ammonium substituted epoxide.

14. (Original) A composition according to Claim 1, wherein said at least one cationic or amphoteric substantive polymer is a copolymer of dimethyldiallylammonium chloride and of acrylic acid (80/20 by weight).

15. (Original) A composition according to Claim 1, wherein said at least one cationic or amphoteric substantive polymer is a crosslinked poly(methacryloyloxyethyltrimethylammonium chloride) homopolymer, as a 50% dispersion in mineral oil; the crosslinked copolymer of acrylamide and of methacryloyloxyethyltrimethylammonium chloride (20/80 by weight), as a 50% dispersion in mineral oil; or the methosulphate of the copolymer of methacryloyloxyethyl-trimethylammonium and of methacryloyloxyethyldimethyl-acetylammonium.

16. (Original) A composition according to Claim 1, wherein said at least one cationic or amphoteric substantive polymer is:

a) a vinylpyrrolidone polymer containing dimethylaminoethyl methacrylate units;

b) a vinylpyrrolidone polymer containing methacrylamidopropyltrimethylammonium units; or

c) a vinylpyrrolidone polymer containing methylvinylimidazolium units.

17. (Original) A composition according to Claim 1, wherein said at least one cationic or amphoteric substantive polymer is present in an amount ranging from about 0.01 to about 10% by weight relative to the total weight of the composition.

18. (Original) A composition according to Claim 17, wherein said at least one cationic or amphoteric substantive polymer is present in an amount ranging from about 0.1 to about 5% by weight relative to the total weight of the composition.

19. (Original) A composition according to Claim 1, wherein said medium suitable for dyeing comprises water or a mixture of water and at least one organic solvent.

20. (Original) A composition according to Claim 1, wherein said composition has a pH ranging from about 2 to about 11.

21. (Original) A composition according to Claim 20, wherein said composition has a pH ranging from about 5 to about 10.

22. (Original) A composition according to Claim 1, further comprising at least one additional direct dye.

23. (Original) A composition according to Claim 22, wherein said at least one additional direct dye is a nitrobenzene dye, anthraquinone dye, naphthoquinone dye, triarylmethane dye, xanthine dye, or an azo dye that is non-cationic.

24. (Original) A composition according to Claim 1, further comprising at least one oxidation base selected from para-phenylenediamines, bis(phenyl)alkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases.

25. (Original) A composition according to Claim 24, wherein said at least one oxidation base is present in an amount ranging from about 0.0005 to about 12% by weight relative to the total weight of the dye composition.

26. (Original) A composition according to Claim 25, wherein said at least one oxidation base is present in an amount ranging from about 0.005 to about 6% by weight relative to the total weight of the dye composition.

27. (Original) A composition according to Claim 24, further comprising at least one coupler selected from meta-phenylenediamines, meta-aminophenols, meta-diphenols and heterocyclic couplers.

28. (Original) A composition according to Claim 27, wherein said at least one coupler is present in an amount ranging from about 0.0001 to about 10% by weight relative to the total weight of the dye composition.

29. (Original) A composition according to Claim 28, wherein said at least one coupler is present in an amount ranging from about 0.005 to about 5% by weight relative to the total weight of the dye composition.

30. (Original) A composition according to Claim 1, further comprising at least one oxidizing agent.

31. (Original) A composition according to Claim 30, wherein said at least one oxidizing agent is hydrogen peroxide, urea peroxide, alkali metal bromate, a persalt, or an enzyme.

32. (Original) A method for dyeing keratin fibers, said method comprising applying at least one dyeing composition according to Claim 1 to said keratin fibers, and allowing said at least one dyeing composition to remain on said keratin fibers for a period of time sufficient to develop the desired coloration.

33. (Original) A method for dyeing keratin fibers according to Claim 32, further comprising rinsing said keratin fibers after said period of time sufficient to develop the desired coloration.

34. (Original) A method for dyeing keratin fibers according to Claim 33, further comprising, after said rinsing, washing said keratin fibers with shampoo, rinsing said keratin fibers again, and drying said keratin fibers.

35. (Original) The method according to Claim 33, wherein said period of time ranges from 3 to 60 minutes.

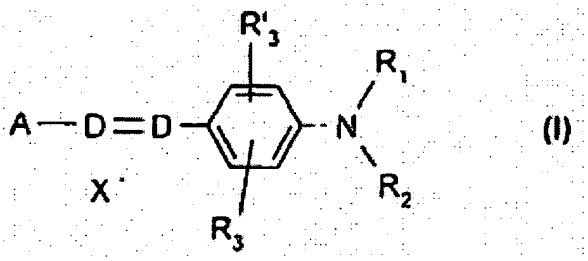
36. (Original) The method according to Claim 35, wherein said period of time ranges from 5 to 40 minutes.

37. (Previously Presented) A method for dyeing keratin fibers, said method comprising

(1) mixing a first composition with a second composition, and

(2) applying said mixture of said first composition and said second composition to said keratin fibers for a period of time sufficient to dye said keratin fibers, wherein said mixing occurs before the time of application to said keratin fibers,

wherein said first composition comprises at least one oxidation base and at least one cationic direct dye of formula (I), (II), (III) or (III') below:



(I)

wherein, in said formula (I):

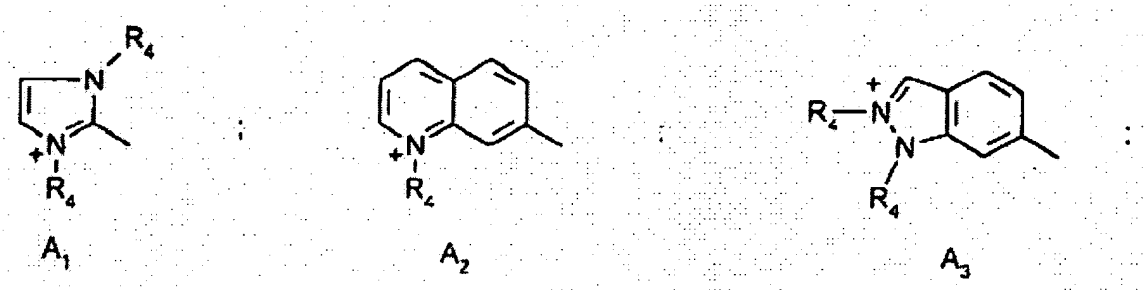
D represents a nitrogen atom and a -CH group,

R_1 and R_2 are identical or different and represent a hydrogen atom, a C_1-C_4 alkyl radical which is unsubstituted or substituted with a -CN, -OH or $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4'aminophenyl radical;

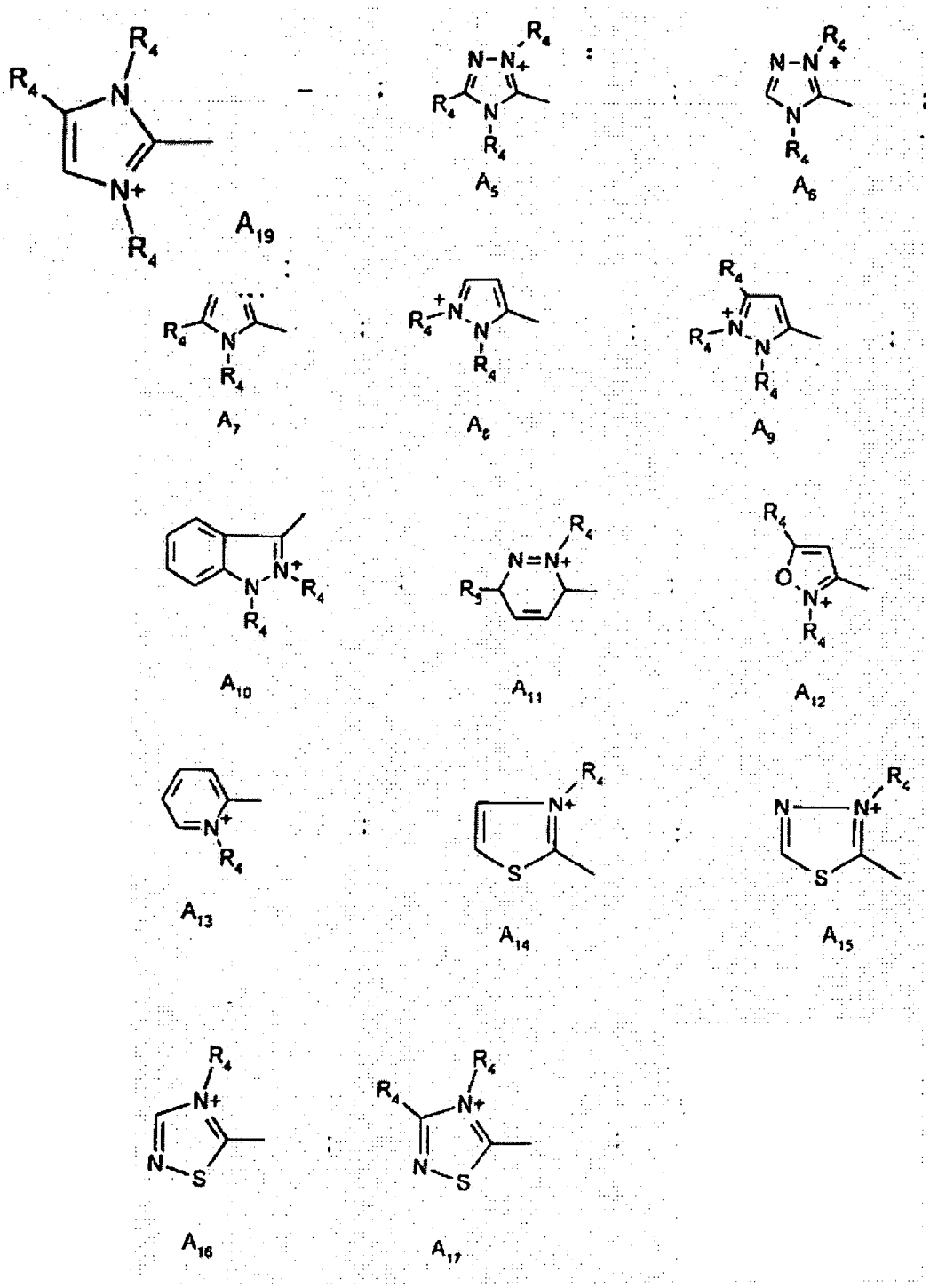
R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

X- represents an anion;

A represents a group selected from structures A_1 to A_{17}, and A_{19} below:



and



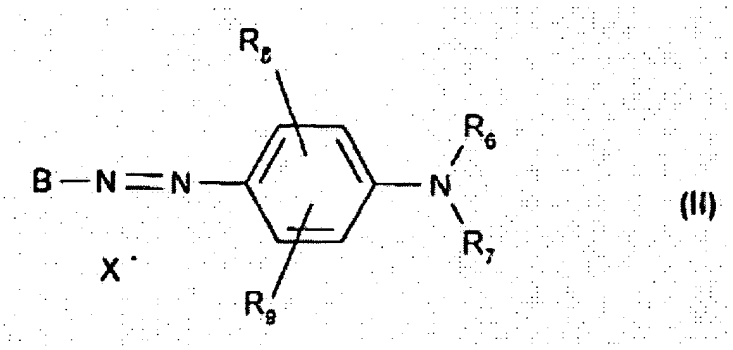
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents -CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, and A_{14}-A_{17}, and A_{19};



(II)

wherein, in said formula (II):

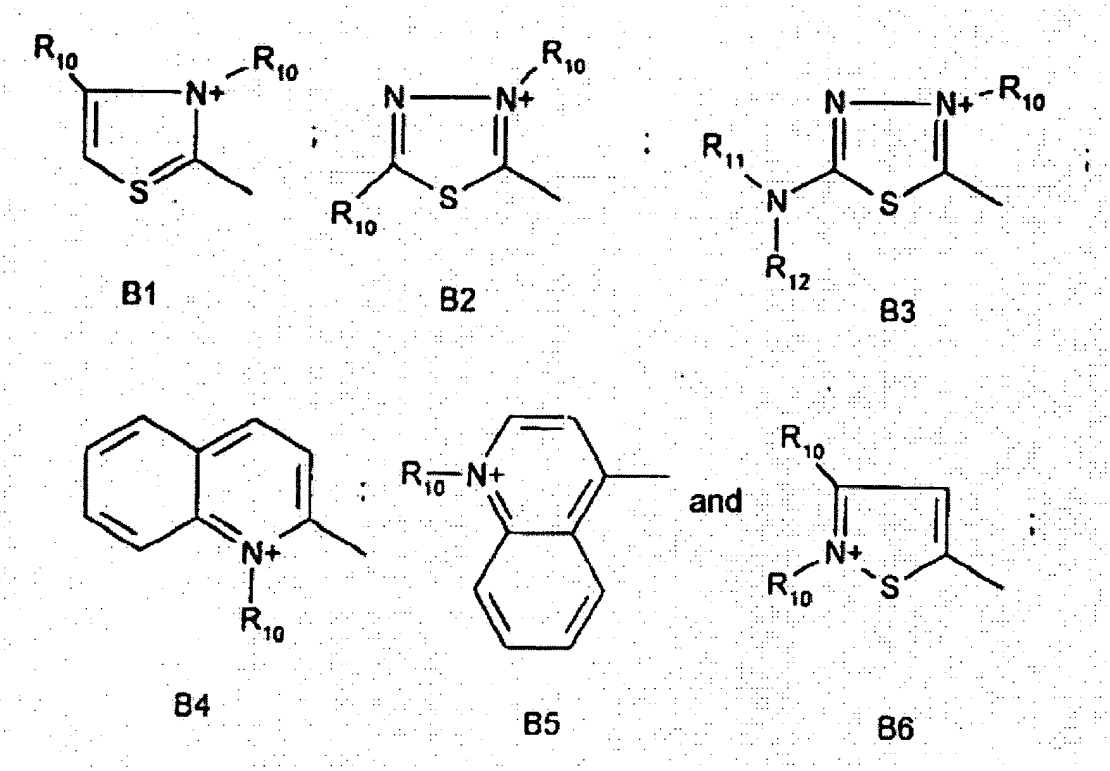
R_6 represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a -CN radical;

X- represents an anion;

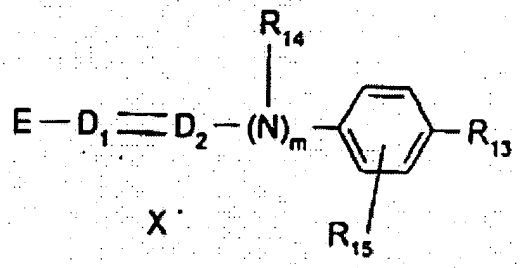
B represents a group selected from structures B1 to B6 below:



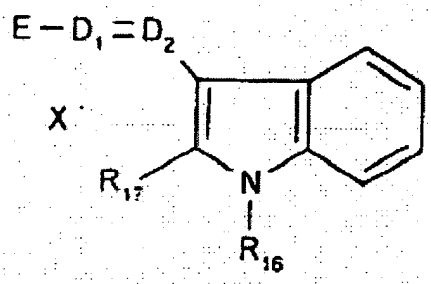
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III'):

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

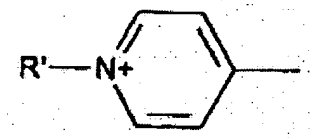
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

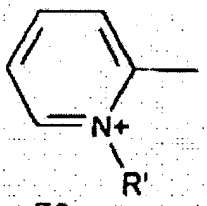
with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a -CH group and m = 0;

X^- represents an anion; and

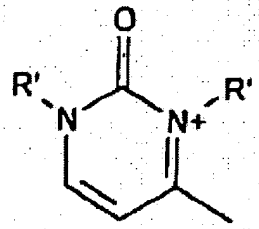
E represents a group from structures E1 to E8 below:



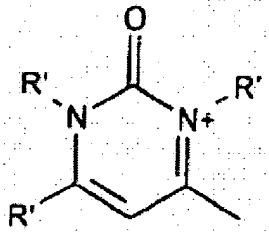
E1



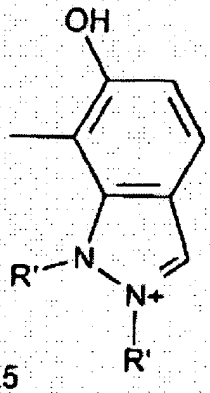
E2



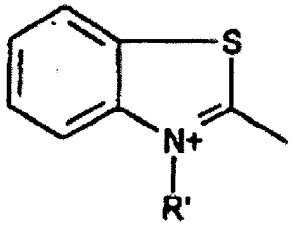
E3



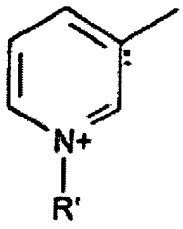
E4



E5

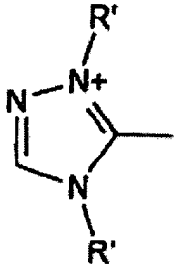


E6



E7

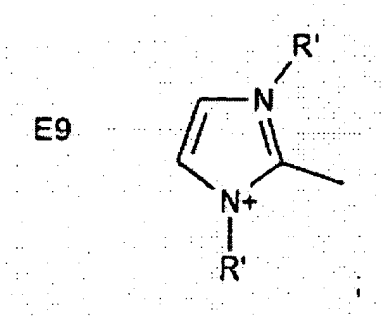
and



E8

wherein R' represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below:

E9 

wherein R' represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

wherein said second composition comprises a medium suitable for dyeing and at least one oxidizing agent; and

further wherein either said first composition or said second composition contains at least one cationic or amphoteric substantive polymer chosen from:

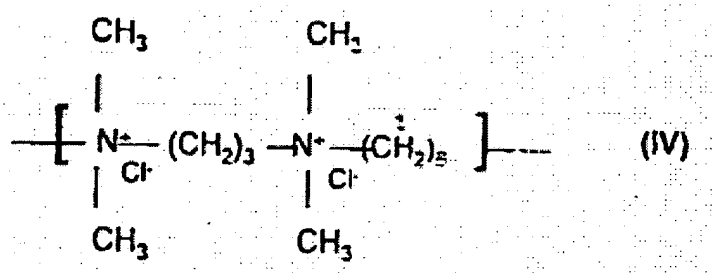
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

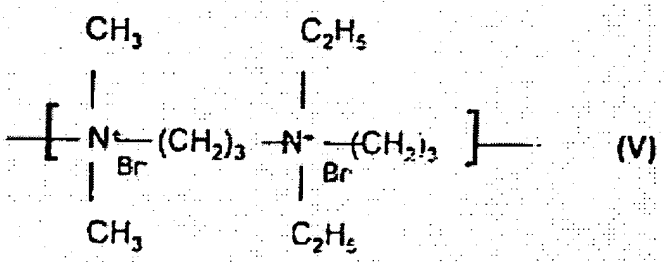
(d) polyquaternary ammonium polymers selected from:

- polymers of repeating units having formula (IV) below:



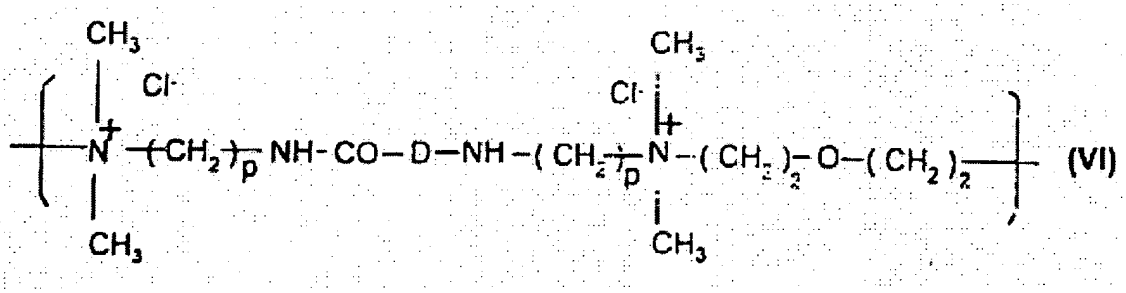
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

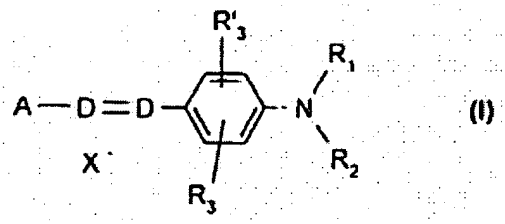
(e) vinylpyrrolidone copolymers containing cationic units.

38. (Previously Presented) A method for dyeing keratin fibers, said method comprising

(1) mixing a first composition with a second, and

(2) applying said mixture of said first composition and said second composition to said keratin fibers for a period of time sufficient to dye said keratin fibers, wherein said mixing occurs before the time of application to said keratin fibers,

wherein said first composition comprises at least one cationic direct dye chosen from at least one cationic direct dye of formula (I), (II), (III) or (III') below:



wherein, in said formula (I):

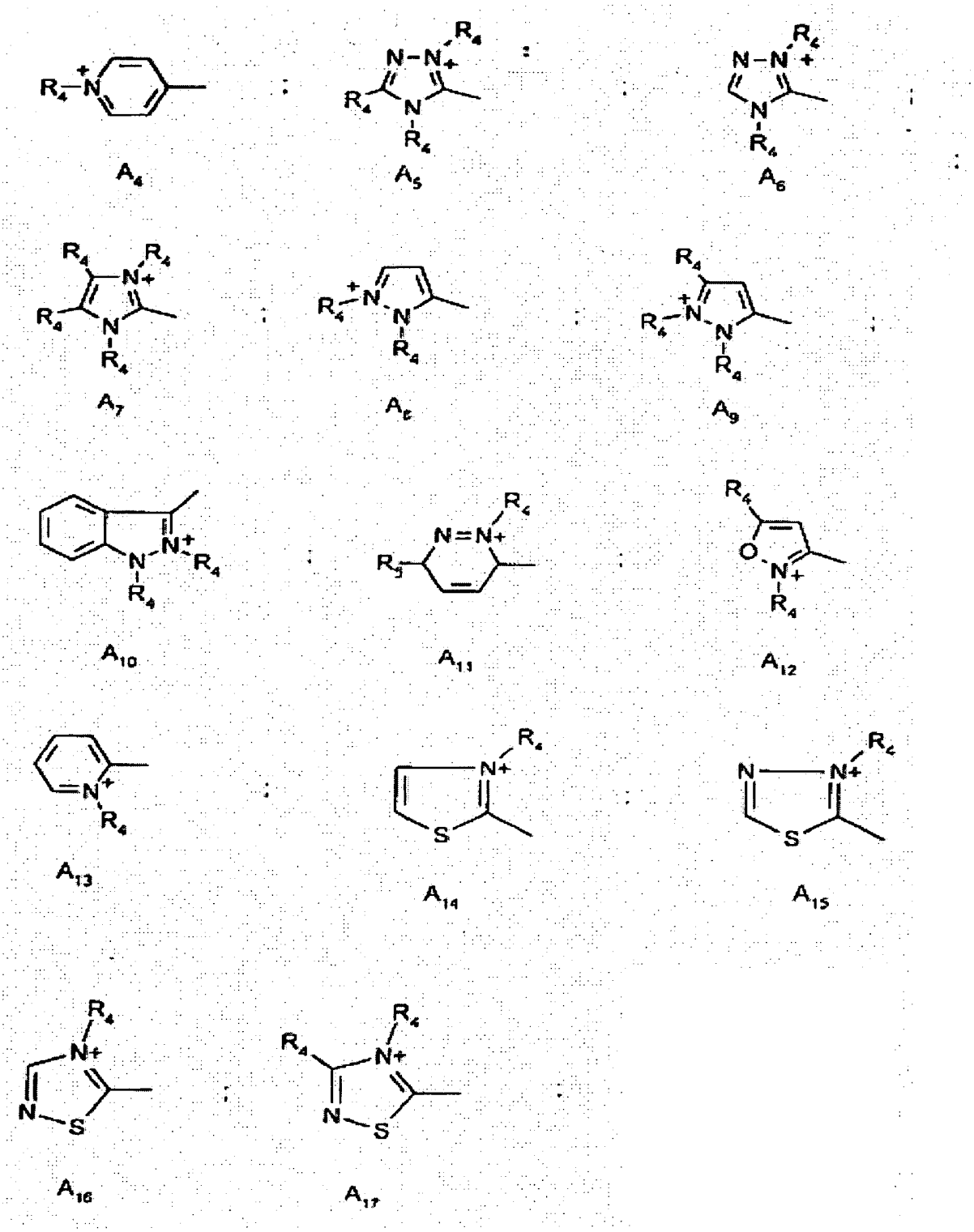
D represents a nitrogen atom and a -CH group,

R_1 and R_2 are identical or different and represent a hydrogen atom, a C_1-C_4 alkyl radical which is unsubstituted or substituted with a -CN, -OH or $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4'aminophenyl radical;

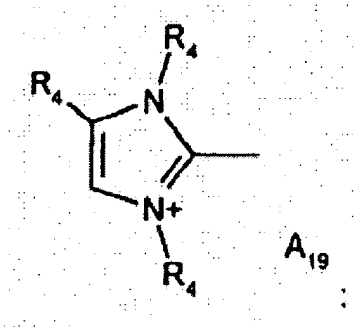
R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

X- represents an anion;

A represents a group selected from structures A_1 to A_{17}, and A_{19} below:



and



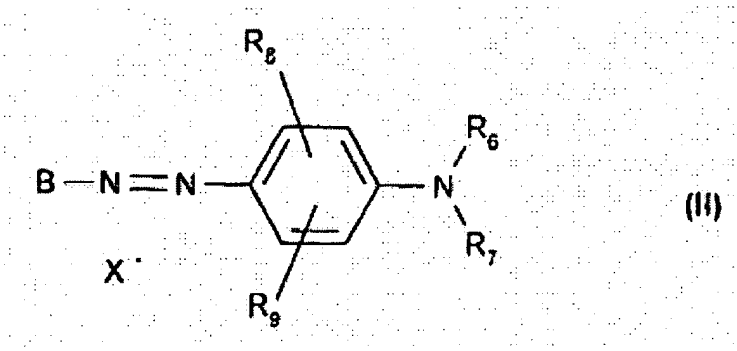
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents -CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, A_{14}-A_{17}, and A_{19};



(II)

wherein, in said formula (II):

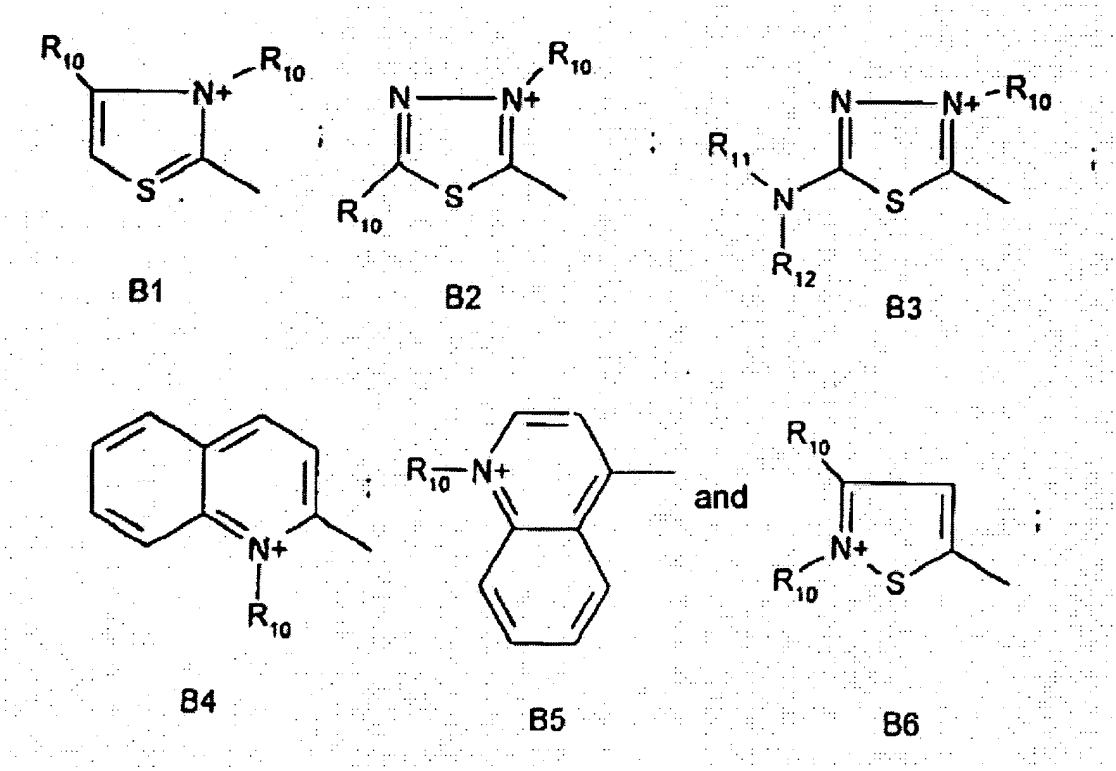
R_6 represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a -CN radical;

X- represents an anion;

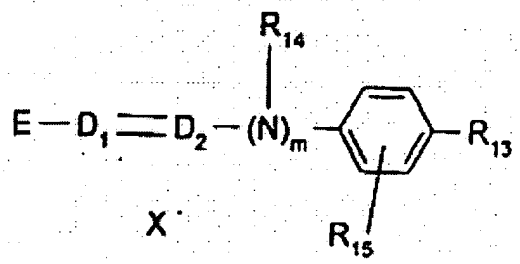
B represents a group selected from structures B1 to B6 below:



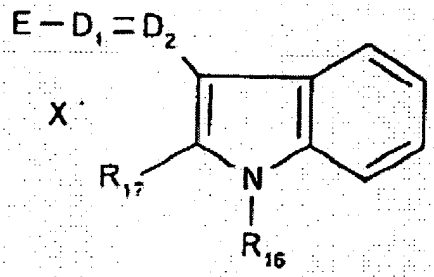
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III'):

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

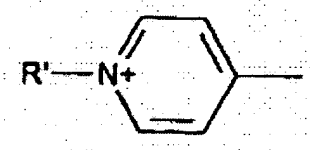
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

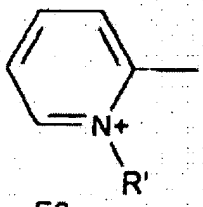
with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a -CH group and m = 0;

X^- represents an anion; and

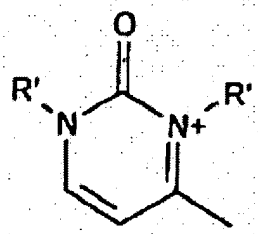
E represents a group from structures E1 to E8 below:



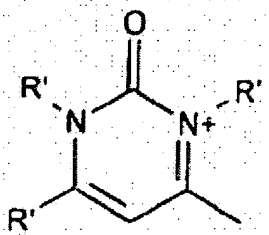
E1



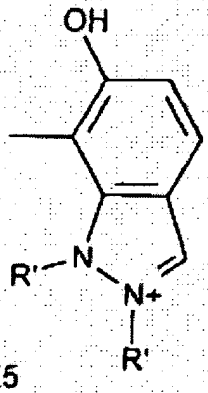
E2



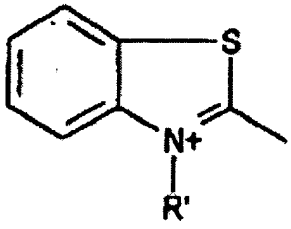
E3



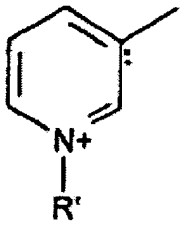
E4



E5

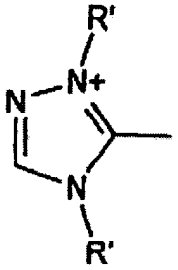


E6



E7

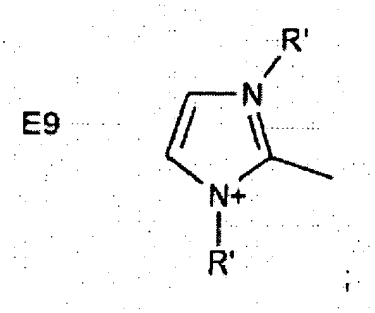
and



E8

wherein R' represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below:



wherein R' represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

wherein said second composition comprises a medium suitable for dyeing and at least one oxidizing agent; and

further wherein either said first composition or said second composition contains at least one cationic or amphoteric substantive polymer chosen from:

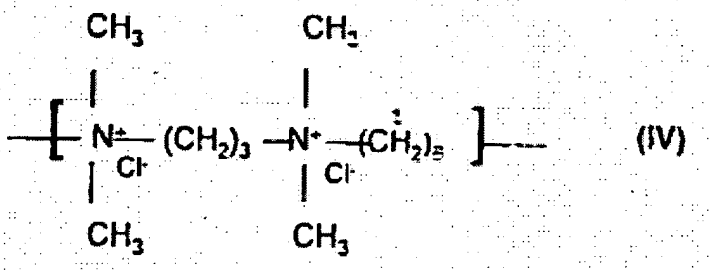
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

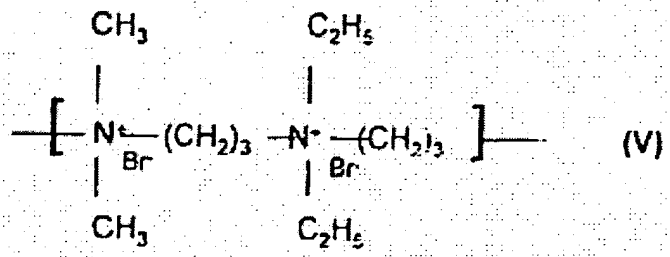
(d) polyquaternary ammonium polymers selected from:

- polymers of repeating units having formula (IV) below:



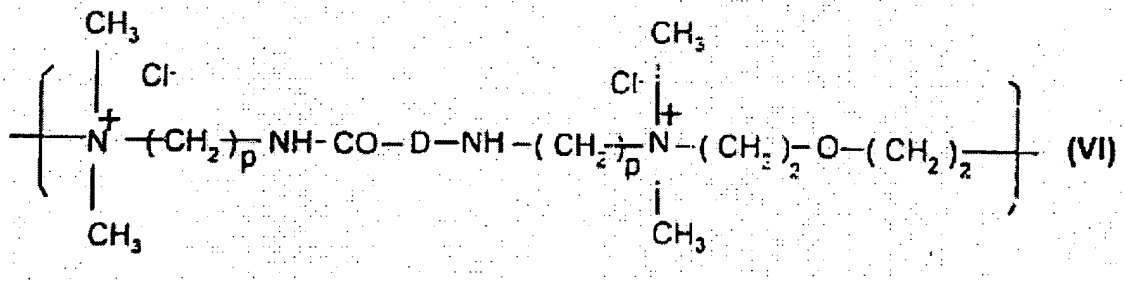
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

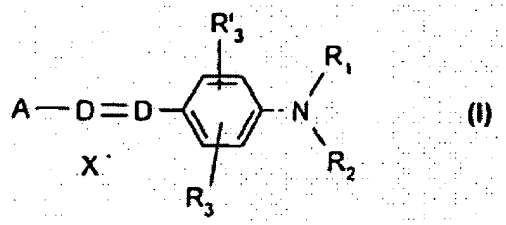
(e) vinylpyrrolidone copolymers containing cationic units.

39. (Previously Presented) A multi-compartment dyeing kit for dyeing keratin fibers comprising at least two compartments, wherein

- a first compartment comprises a first composition, and
- a second compartment comprises a second composition,

wherein said first composition comprises at least one oxidation base and at least one cationic direct dye of formula (I), (II), (III) or (III') below:

wherein, in said formula (I):



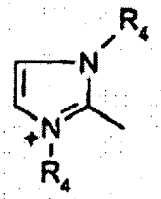
D represents a nitrogen atom and a -CH group,

R_1 and R_2 are identical or different and represent a hydrogen atom, a C_1-C_4 alkyl radical which is unsubstituted or substituted with a -CN, -OH or $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4'aminophenyl radical;

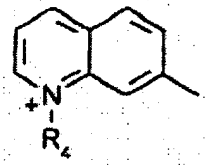
R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

X- represents an anion;

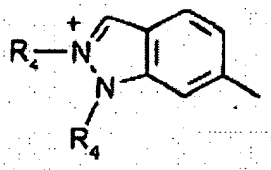
A represents a group selected from structures A_1 to A_{17}, and A_{19} below:



A_1 ;

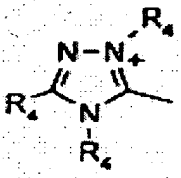


A_2 ;

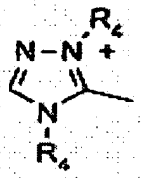


A_3 ;

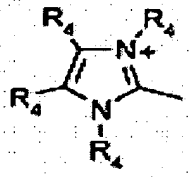
A_4 ;



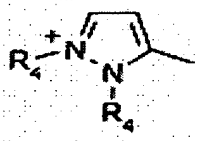
A_5 ;



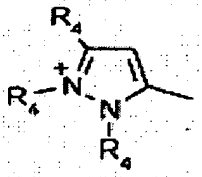
A_6 ;



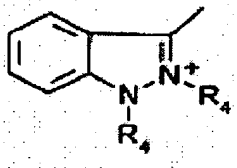
A_7 ;



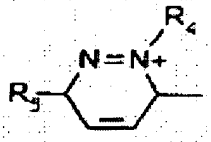
A_8 ;



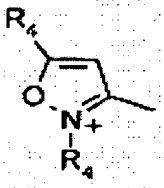
A_9 ;



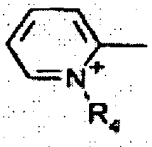
A_{10} ;



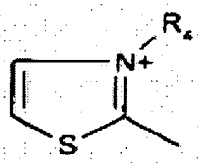
A_{11} ;



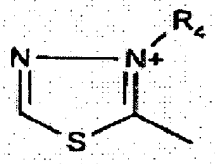
A_{12} ;



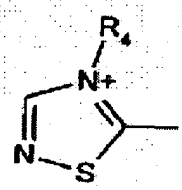
A_{13} ;



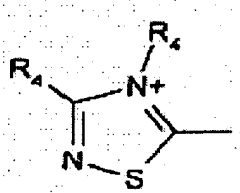
A_{14} ;



A_{15} ;

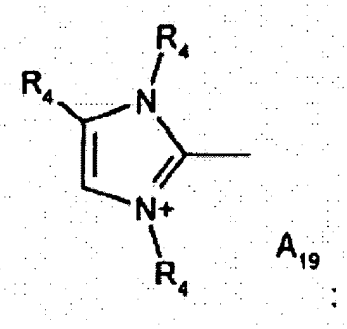


A_{16} ;



$A_{...}$;

and



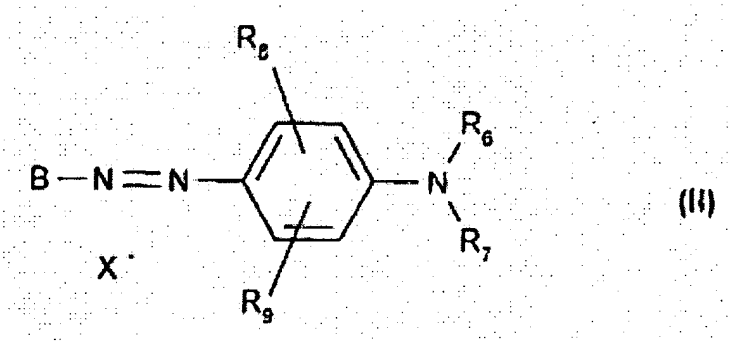
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents -CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, A_{14}-A_{17}, and A_{19};



(II)

wherein, in said formula (II):

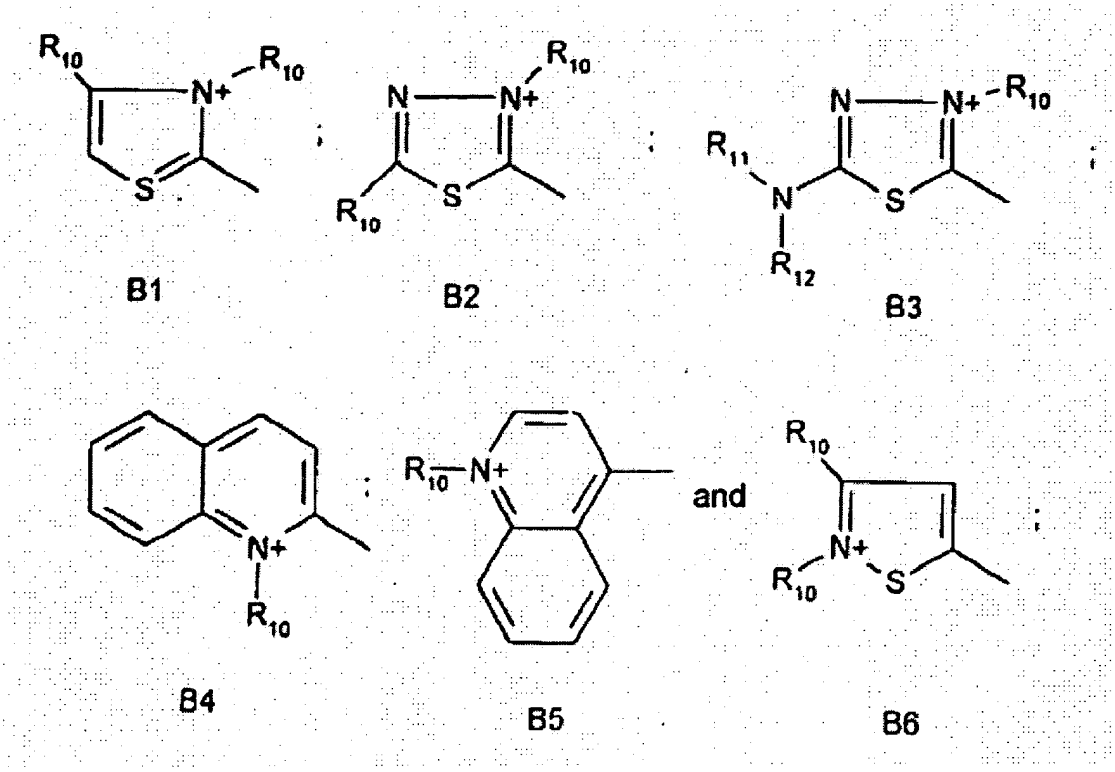
R_6 represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a -CN radical;

X- represents an anion;

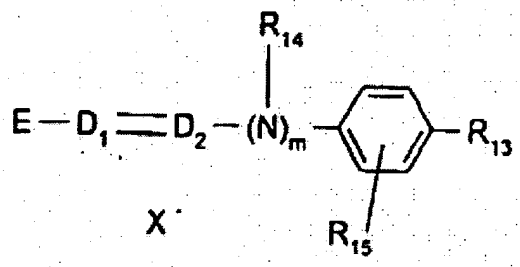
B represents a group selected from structures B1 to B6 below:



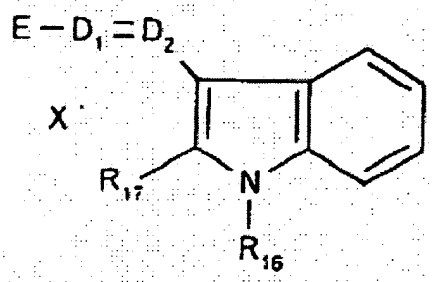
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III'):

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

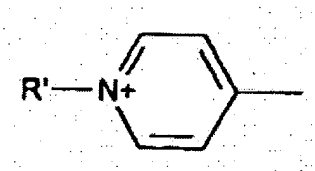
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

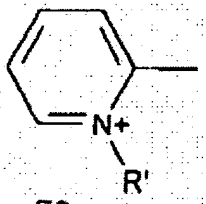
with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a -CH group and m = 0;

X^- represents an anion; and

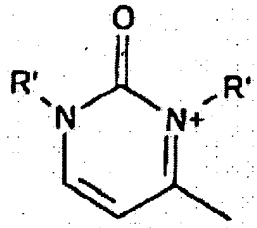
E represents a group from structures E1 to E8 below:



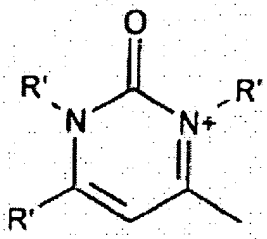
E1



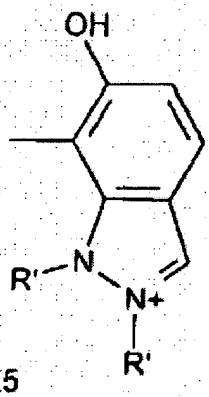
E2



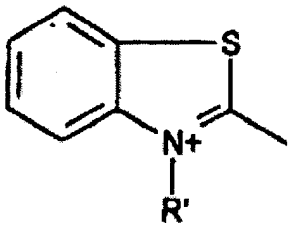
E3



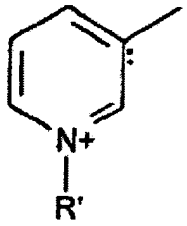
E4



E5

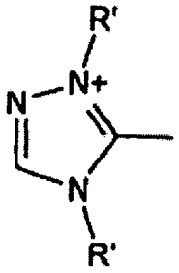


E6



E7

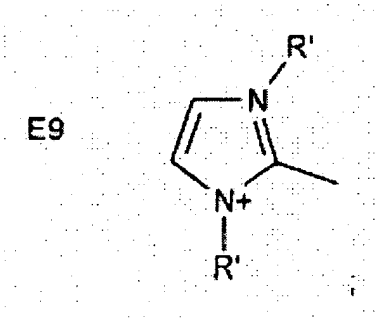
and



E8

wherein R' represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below:



wherein R' represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

wherein said second composition comprises a medium suitable for dyeing and at least one oxidizing agent; and

further wherein either said first composition or said second composition contains at least one cationic or amphoteric substantive polymer chosen from:

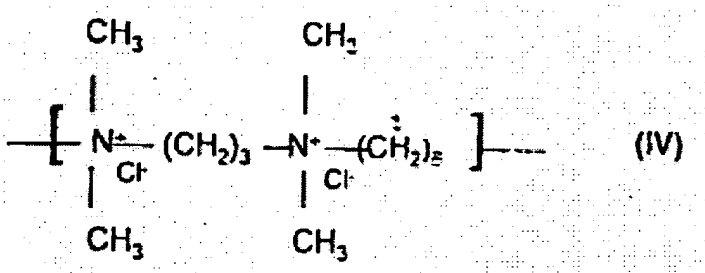
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

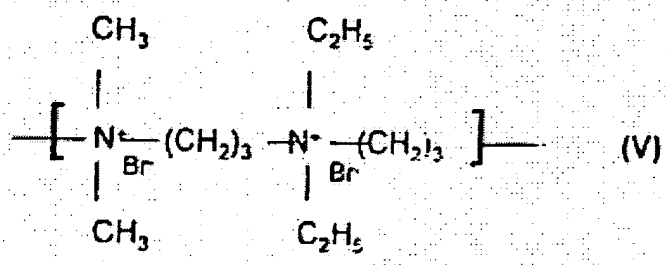
(d) polyquaternary ammonium polymers selected from:

- polymers of repeating units having formula (IV) below:



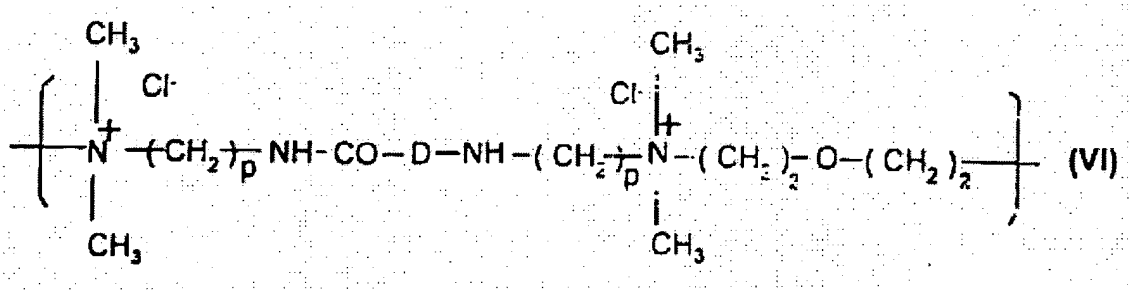
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

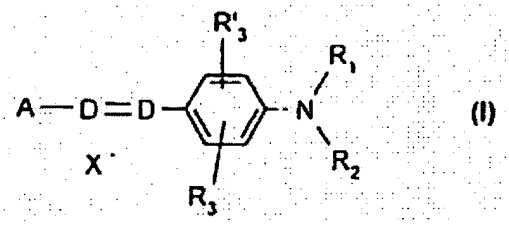
(e) vinylpyrrolidone copolymers containing cationic units.

40. (Previously Presented) A multi-compartment dyeing kit for dyeing keratin fibers comprising at least two compartments, wherein

- a first compartment comprises a first composition and
- a second compartment comprises a second composition;

wherein said first composition comprises at least one cationic direct dye of formula (I), (II), (III) or (III') below:

wherein, in said formula (I):



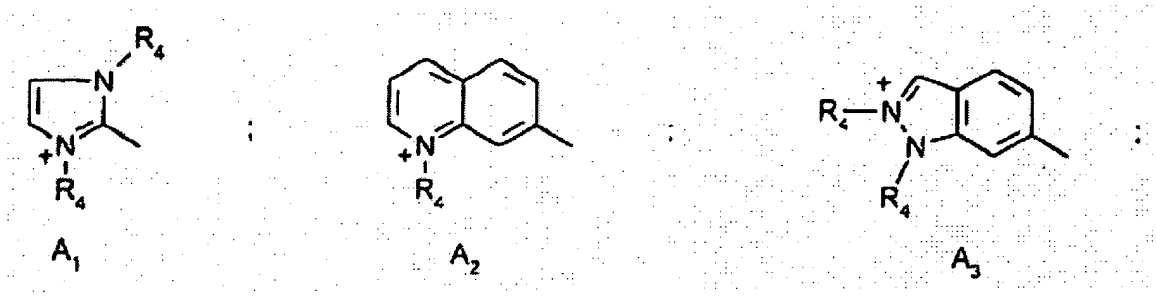
D represents a nitrogen atom and a -CH group,

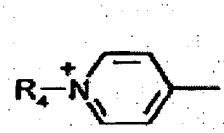
R_1 and R_2 are identical or different and represent a hydrogen atom, a C_1-C_4 alkyl radical which is unsubstituted or substituted with a -CN, -OH or $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4'aminophenyl radical;

R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

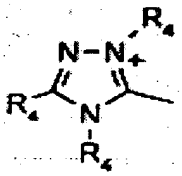
X- represents an anion;

A represents a group selected from structures A_1 to A_{17}, and A_{19} below:

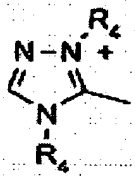




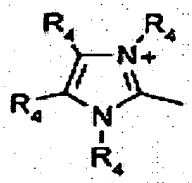
A_4



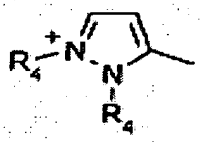
A_5



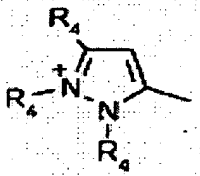
A_6



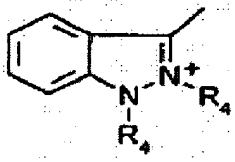
A_7



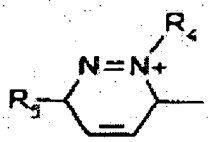
A_8



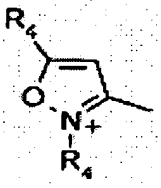
A_9



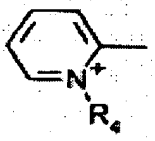
A_{10}



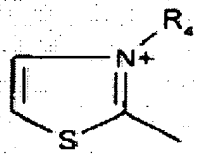
A_{11}



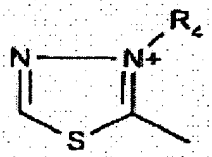
A_{12}



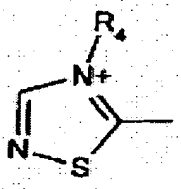
A_{13}



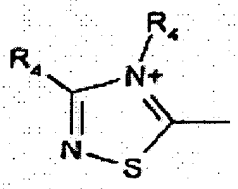
A_{14}



A_{15}

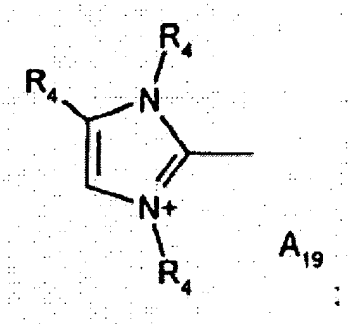


A_{16}



A_{17}

and



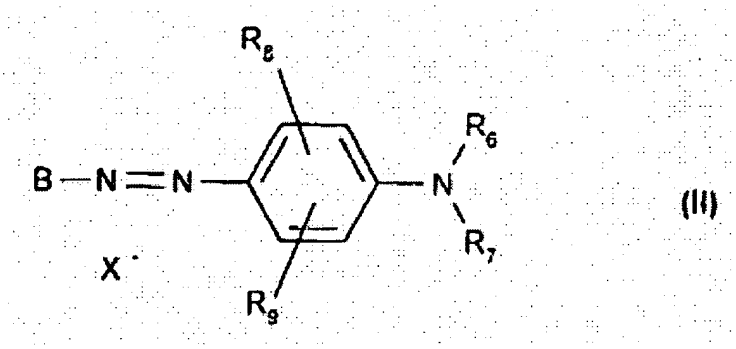
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents -CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, A_{14}-A_{17}, and A_{19};



(II)

wherein, in said formula (II):

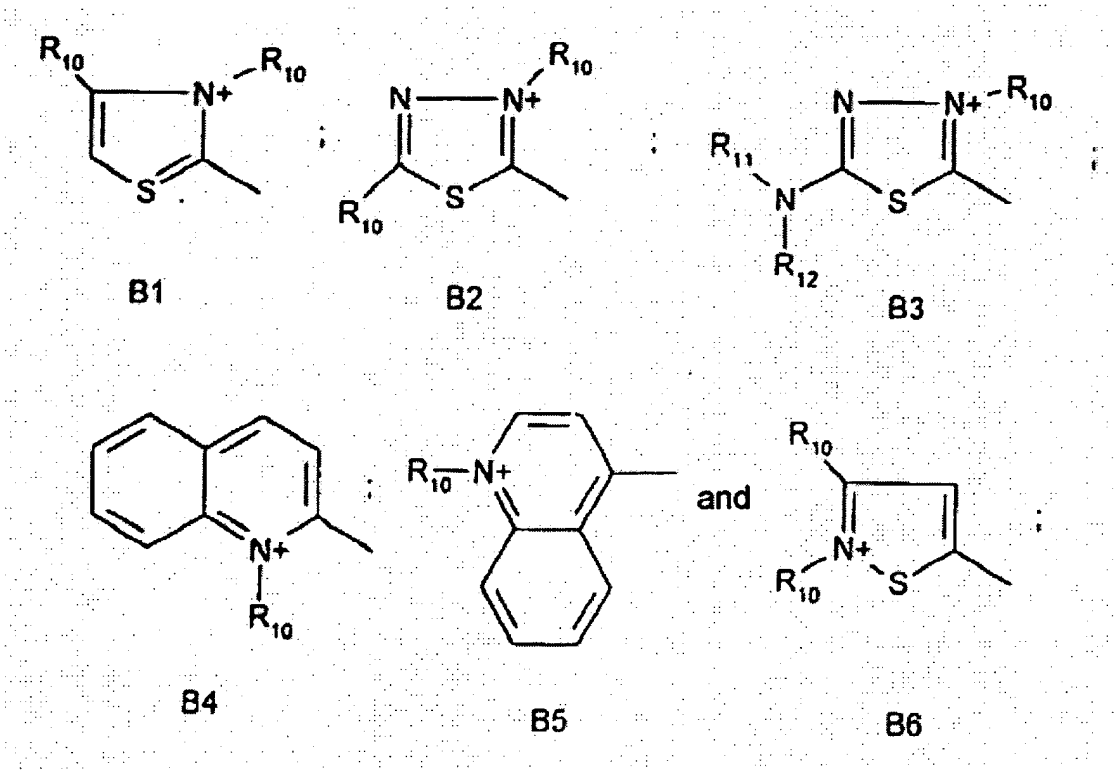
R_6 represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a -CN radical;

X- represents an anion;

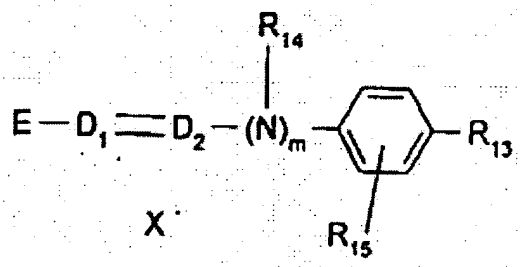
B represents a group selected from structures B1 to B6 below:



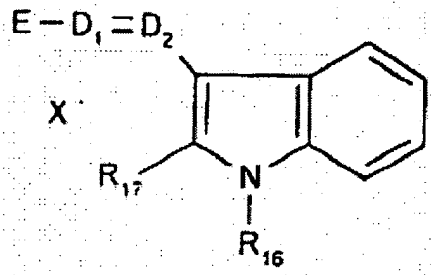
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III'):

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

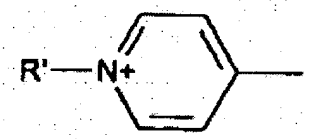
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

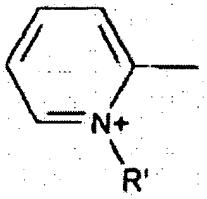
with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a -CH group and m = 0;

X^- represents an anion; and

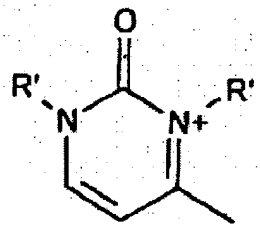
E represents a group from structures E1 to E8 below:



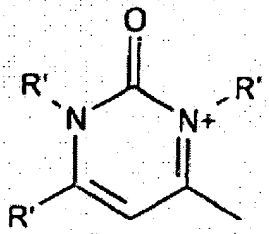
E1



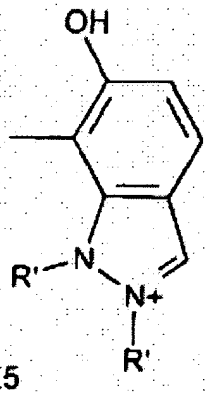
E2



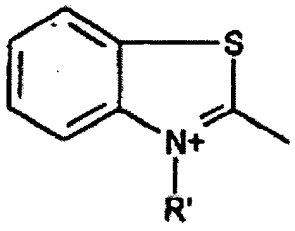
E3



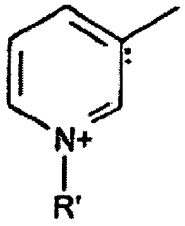
E4



E5

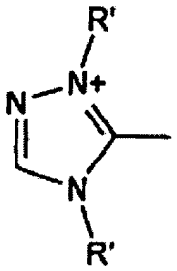


E6



E7

and

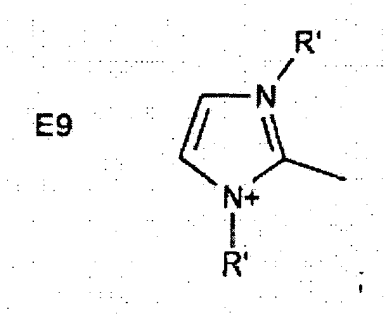


E8

wherein R' represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below:

E9



wherein R' represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

wherein said second composition comprises a medium suitable for dyeing and at least one oxidizing agent; and

further wherein either said first composition or said second composition contains at least one cationic or amphoteric substantive polymer chosen from:

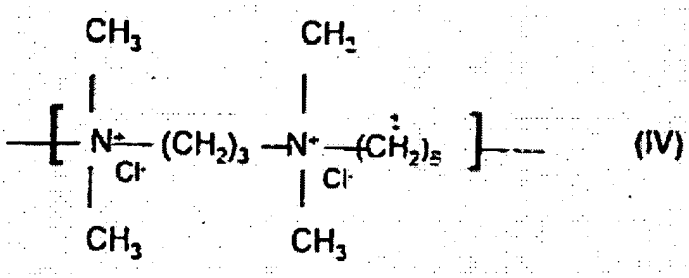
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

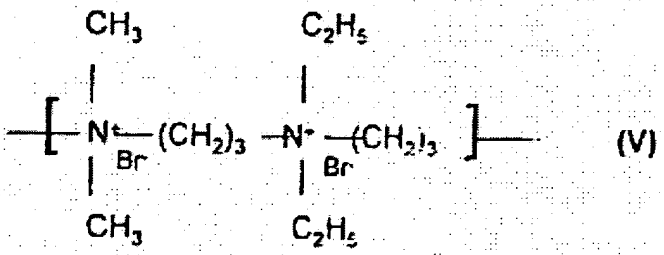
(d) polyquaternary ammonium polymers selected from:

- polymers of repeating units having formula (IV) below:



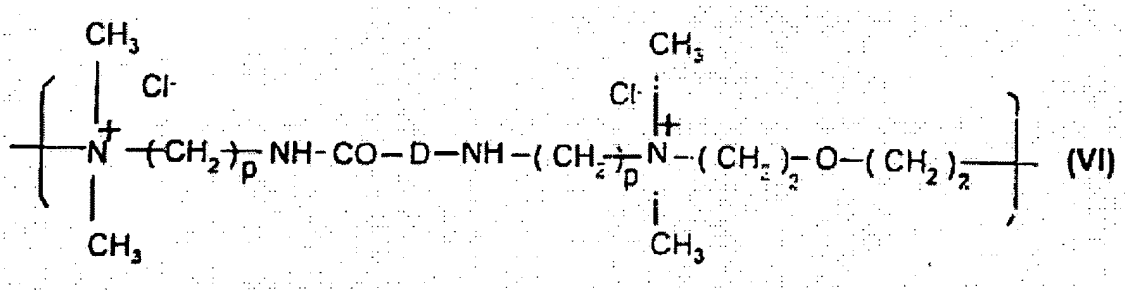
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

(e) vinylpyrrolidone copolymers containing cationic units.

41. (Original) A composition according to Claim 1 in the form of a liquid, a shampoo, a cream, or a gel.

42. (Original) A composition according to Claim 41 in the form of a shampoo.

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

1. Declaration under 37 C.F.R. § 1.132 of Christine RONDEAU.

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

1. U.S. Application No. 09/287,176, Appeal No. 2003-1308; Decision dated November 25, 2003.

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTINE RONDEAU

Appeal No. 2003-1308
Application No. 09/287,176

HEARD: November 5, 2003

Before KIMLIN, WARREN and OWENS, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-42. A copy of illustrative claim 1 is appended to this decision.

12-15
5

The examiner relies upon the following references as evidence of obviousness:

Cotteret et a. (Cotteret)	5,735,908	Apr. 07, 1998
Kao Corporation (German Patent)	DE 29512302	Jan. 16, 1997
Möckli (PCT International Application)	WO 95/01772	Jan. 19, 1995

Appellant's claimed invention is directed to a composition for dying keratin fibers comprising at least one of the recited cationic direct dyes and at least one of the claimed cationic or amphoteric substantive polymers. According to appellant's specification, a first type of dyeing in the hair sector is semi-permanent or temporary dyeing, also known as direct dyeing. A second type is permanent or oxidation dyeing with "oxidation" dyes comprising oxidation dye precursors and couplers. At the time of filing the present application, it was a known practice to vary the shades obtained with oxidation dyes by adding direct dyes thereto. Known cationic direct dyes have the disadvantage of leading to insufficient colorations, both regarding the homogeneity of the color distributed among the fiber and the staying power. Appellant's specification relates that:

> Now, after considerable research conducted in this area, the Inventor has discovered that it is possible to obtain novel compositions for dyeing keratin fibers capable of giving colorations that are less selective

> and that show good resistance to the various attacking factors to the hair, by combining at least one specific cationic or amphoteric substantive polymer with at least one cationic direct dye known in the art and of formulae respectively defined below (page 2 of specification, penultimate paragraph).

Appealed claims 1-42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cotteret in view of Mockli. Claims 1-23, 32-36 and 41-42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kao in view of Mockli.[1]

Appellant submits at page 4 of the principal brief that, with respect to the rejection over Cotteret in view of Mockli, claims 1-42 stand or fall together, and with respect to the rejection over Kao in view of Mockli, claims 1-23, 32-36 and 41-42 stand or fall together. Consequently, all the appealed claims stand or fall together with claim 1, and, accordingly, we will limit our review to the examiner's rejections of claim 1.

We have thoroughly reviewed appellant's arguments for patentability. We are in complete agreement with the examiner, however, that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain

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[1] The examiner's obviousness-type double patenting rejection of the appealed claims has been withdrawn in view of appellant's submission of a terminal disclaimer.

the examiner's rejections for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

We consider first the examiner's rejection of all the appealed claims over Cotteret in view of Mockli. There is no dispute that Cotteret, like appellant, teaches a composition for dyeing keratin fibers comprising cationic or amphoteric substantive polymers within the scope of the appealed claims and direct dyes. Cotteret does not teach the specific cationic direct dyes embraced by the appealed claims. However, there is also no dispute that Mockli teaches compositions for dyeing keratin fibers comprising the presently claimed cationic direct dyes, and teaches that such cationic direct dyes

> can be used to achieve in a very simple way and under gentle conditions very deep dyeings having excellent light, shampooing and crock fastness properties. Owing to their extremely clean shades, they also extend the range of possible mixed shades considerably, especially in the direction of the increasingly important brilliant fashion colours.

(Paragraph bridging pages 1 and 2). Accordingly, based on the collective teachings of Cotteret and Mockli, we find no error in the examiner's reasoning that it would have been prima facie obvious for one of ordinary skill in the art to select the cationic direct dyes of Mockli for use in the dyeing compositions of Cotteret for the advantages described in Mockli. Since

Cotteret teaches that direct dyes, in general, may be added to the oxidation dye compositions comprising the presently claimed cationic or amphoteric substantive polymers, and Mockli also teaches that appellant's cationic direct dyes may be formulated with cationic conditioning polymers, we are satisfied that one of ordinary skill in the art would have reasonably expected that the cationic direct dyes of Mockli would be compatible in the dye compositions of Cotteret.

Appellant contends that "*Cotteret* provides motivation only to use a substantive amphoteric or cationic polymer with an oxidation dye, not with a direct dye" (page 11 of principal brief, first paragraph). However, since Cotteret expressly teaches the addition of direct dyes to the dye composition, we agree with the examiner that appellant's argument is without merit. Mockli provides the motivation for one of ordinary skill in the art following the teachings of Cotteret to select the specific direct dyes used by appellant.

We are also not persuaded by appellant's argument that "*Mockli* does not teach or suggest using its direct dyes in an oxidative composition" (id., second paragraph), since Mockli discusses certain reservations and toxicological risks associated with using oxidation compositions. It is Cotteret, not Mockli,

who provides the teaching of using direct dyes in composition with oxidation compositions and, furthermore, Mockli provides no teaching that the cationic direct dyes cannot be used in an oxidation composition. Hence, we do not subscribe to appellant's argument that Mockli presents a "teaching away" from oxidation dyeing but, rather, Mockli teaches that effective dyeing can be achieved without the known disadvantages of oxidation dyes by using the disclosed direct dyes. We are satisfied that one of ordinary skill the art would have found it obvious to use the direct dyes of Mockli in composition with oxidation dyes with the expectation of experiencing the disadvantages attendant with the use of oxidation dyes. We note that appellant has presented no argument, let alone objective evidence, which demonstrates that the claimed compositions, which may include oxidation dyes, do not exhibit the toxicological risks discussed by Mockli.

We now turn to the rejection over Kao in view Mockli. Appellant does not dispute the examiner's factual determination that Kao, like appellant, discloses a composition for dyeing keratin fibers comprising direct dyes and substantive conditioning polymers claimed by appellant. Kao does not disclose appellant's cationic direct dyes. However, for the reasons discussed above, we concur with the examiner that it

would have been obvious for one of ordinary skill in the art to select the cationic direct dyes of Mockli for use in the dyeing composition of Kao.

It is appellant's argument that Kao "suggests improving stability of dyeing compositions using a hydroxy-C_2-C_4-alkyl guar gum together with a dye compatible together with that guar gum" (page 6 of principal brief, first paragraph), and that Kao lists 42 direct dyes that meet this requirement, but "none of the dyes in this list falls within the scope of the presently claimed cationic direct dyes (page 6 of principal brief, second paragraph). However, as explained by the examiner and acknowledged by appellant, Kao provides a general teaching that all direct-acting hair dyes may be used and, significantly, Kao further teaches that "the cationic (basic) dyes are particularly preferred since their stability and dye uptake properties are especially enhanced by the addition of the guar gum derivative according to the invention" (page 2 of translation, fourth paragraph, emphasis added). Hence, although the list of 19 cationic dyes provided by Kao does not include the specifically claimed dyes, we agree with the examiner that Kao's characterization of cationic dyes, in general, as particularly preferred would have clearly suggested the particular cationic direct dyes

disclosed by Mockli. We find that one of ordinary skill in the art would have found it obvious to employ the direct dyes of Mockli in the composition of Kao for the purpose of achieving the advantages described by Mockli and, based on the Kao disclosure that cationic dyes are particularly preferred because their stability and dye uptake are enhanced by the addition of guar gum, one of ordinary skill in the art would have reasonably expected that the direct dyes of Mockli would be compatible with the guar gum of Kao's dyeing composition. Appellant has advanced neither argument nor evidence demonstrating that one of ordinary skill in the art would have had any expectation that the direct dyes of Mockli would be incompatible with the guar gum of Kao. While appellant contends that Kao "does not fairly suggest that all dyes will work with its guar gums" (page 7 of principal brief, last paragraph), Kao does teach that cationic dyes are particularly preferred.

As a final point, we note that appellant bases no argument upon objective evidence of nonobviousness which would serve to rebut the inference of obviousness established by the applied prior art.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

EDWARD C. KIMLIN
Administrative Patent Judge

CHARLES F. WARREN
Administrative Patent Judge

TERRY J. OWENS
Administrative Patent Judge

BOARD OF PATENT APPEALS AND INTERFERENCES

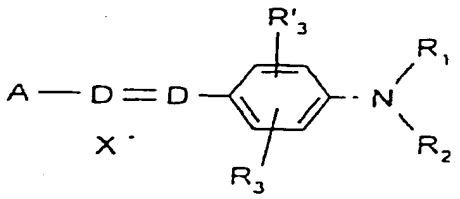
ECK:clm

Finnegan, Henderson, Farabow,
Garrett & Dunner
1300 I St., N.W.
Washington, DC 20005-3315

APPENDIX

1. A composition for dyeing keratin fibers, said composition comprising, in a medium suitable for dyeing,

(i) at least one cationic direct dye chosen from cationic direct dyes of formula (I), (II), (III) and (III') below:



(I)

wherein, in said formula (I):

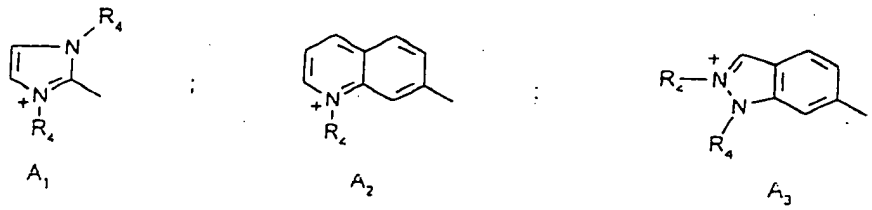
D is chosen from a nitrogen atom and a -CH group,

R_1 and R_2 are identical or different and are chosen from a hydrogen atom, a 4'aminophenyl radical and a C_1-C_4 alkyl radical which is unsubstituted or substituted with a radical chosen from -CN, -OH and $-NH_2$, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with at least one C_1-C_4 alkyl radical;

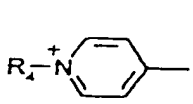
R_3 and R'_3 are identical or different and are chosen from a hydrogen atom, a halogen atom chosen from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, a C_1-C_4 alkoxy radical, and an acetyloxy radical;

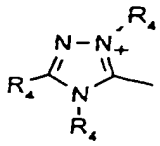
X^- represents an anion;

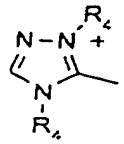
A is a group chosen from structures A1 to A19 below:



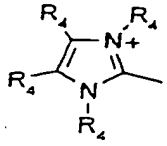
A_1 ; A_2 ; A_3

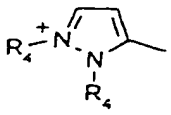


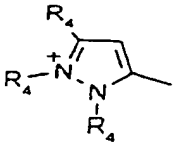
A_4 : 

A_5 : 

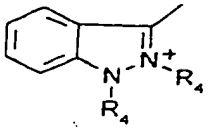
A_6

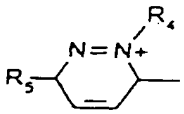


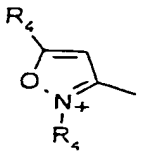
A_7 : 

A_8 : 

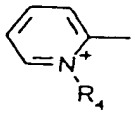
A_9 :

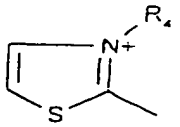


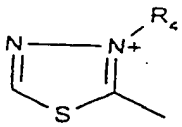
A_{10} : 

A_{11} : 

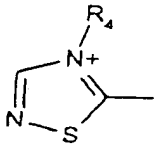
A_{12}

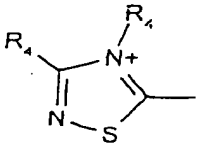


A_{13} : 

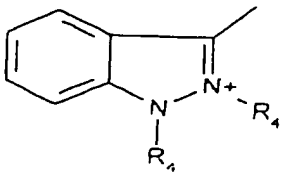
A_{14} : 

A_{15}



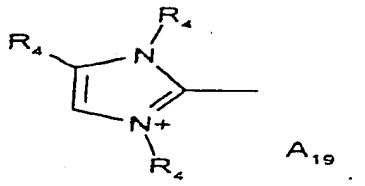
A_{15} : 

A_{17}



A_{18}

and



wherein

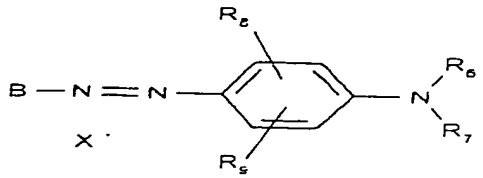
R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that

when D is -CH, A is chosen from A_4 and A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12} and A_{14}-A_{19};



(II)

wherein, in said formula (II):

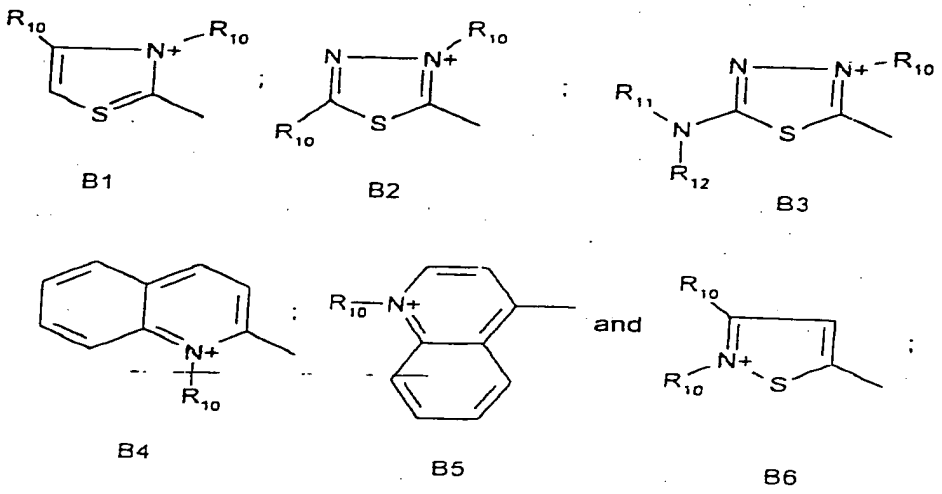
R_6 is chosen from a hydrogen atom and a C_1-C_4 alkyl radical;

R_7 is chosen from a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a -CN radical or with an amino group, and a 4'-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and are chosen from a hydrogen atom, a halogen atom, a C_1-C_4 alkyl radical, a C_1-C_4 alkoxy radical, and a -CN radical;

X^- is an anion;

B is a group chosen from structures B1 to B6 below:



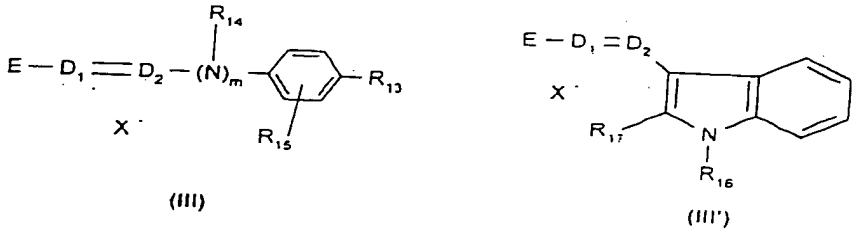
B1 B2 B3

B4 B5 and B6

wherein

R is a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, are chosen from a hydrogen atom and a C_1-C_4 alkyl radical;



(III) (III')

wherein, in said formulae (III) and (III'):

R_{13} is chosen from a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} is chosen from a hydrogen atom and a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} is chosen from a hydrogen atom and a halogen atom;

R_{16} and R_{17}, which are identical or different, are chosen from a hydrogen atom and a C_1-C_4 alkyl radical;

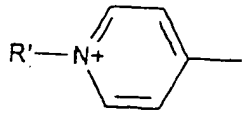
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a -CH group;

m = 0 or 1;

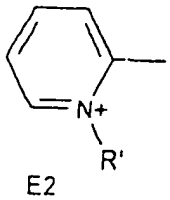
with the proviso that when R_{13} is an unsubstituted amino group, then D_1 and D_2 simultaneously are a -CH group and m = 0;

X^- is an anion; and

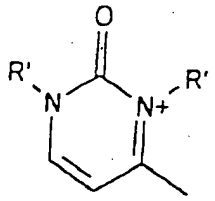
E is a group chosen from structures E1 to E8 below:



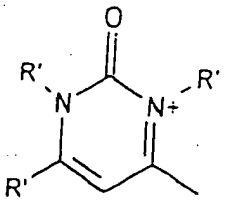
E1



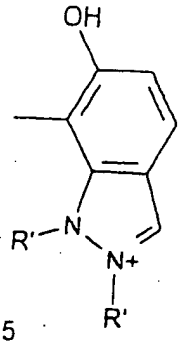
E2



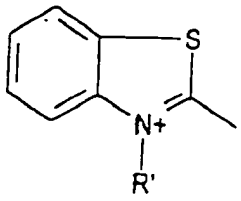
E3



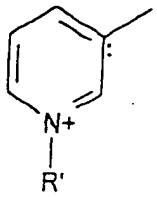
E4



E5

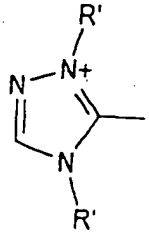


E6



E7

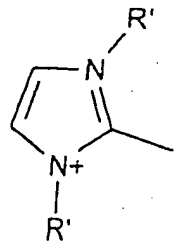
and



E8

wherein R' is a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 is a nitrogen atom, then E can also be a group of structure E9 below:

E9 

wherein R' is a C_1-C_4 alkyl radical;
with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m = 0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

(ii) at least one cationic or amphoteric substantive polymer chosen from:

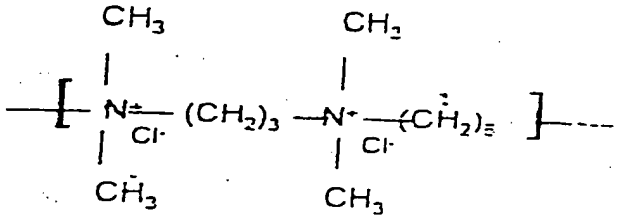
(a) cellulosic cationic derivatives with the exception of polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

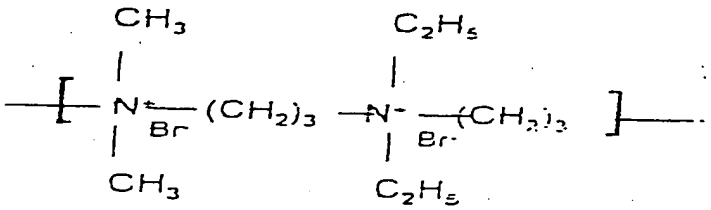
(d) polyquaternary ammonium polymers chosen from:

- polymers of repeating units having formula (IV) below:



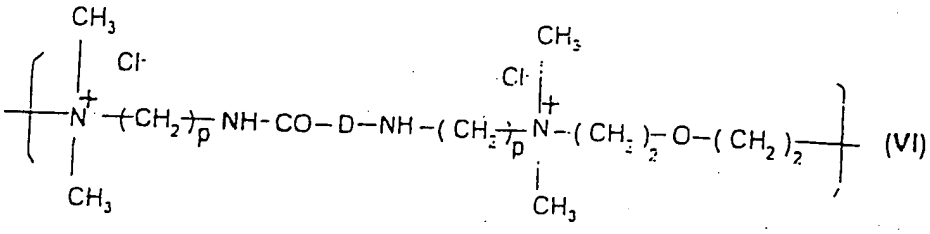
(IV)

- polymers of repeating units having formula (V) below:



(V)

- and polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is absent or is a group $-(CH_2)_r-CO-$ wherein r represents a number equal to 4 or 7; and

(e) vinylpyrrolidone copolymers containing cationic units.